

# JOURNAL

ROYAL ARCHITECTURAL  
INSTITUTE OF CANADA

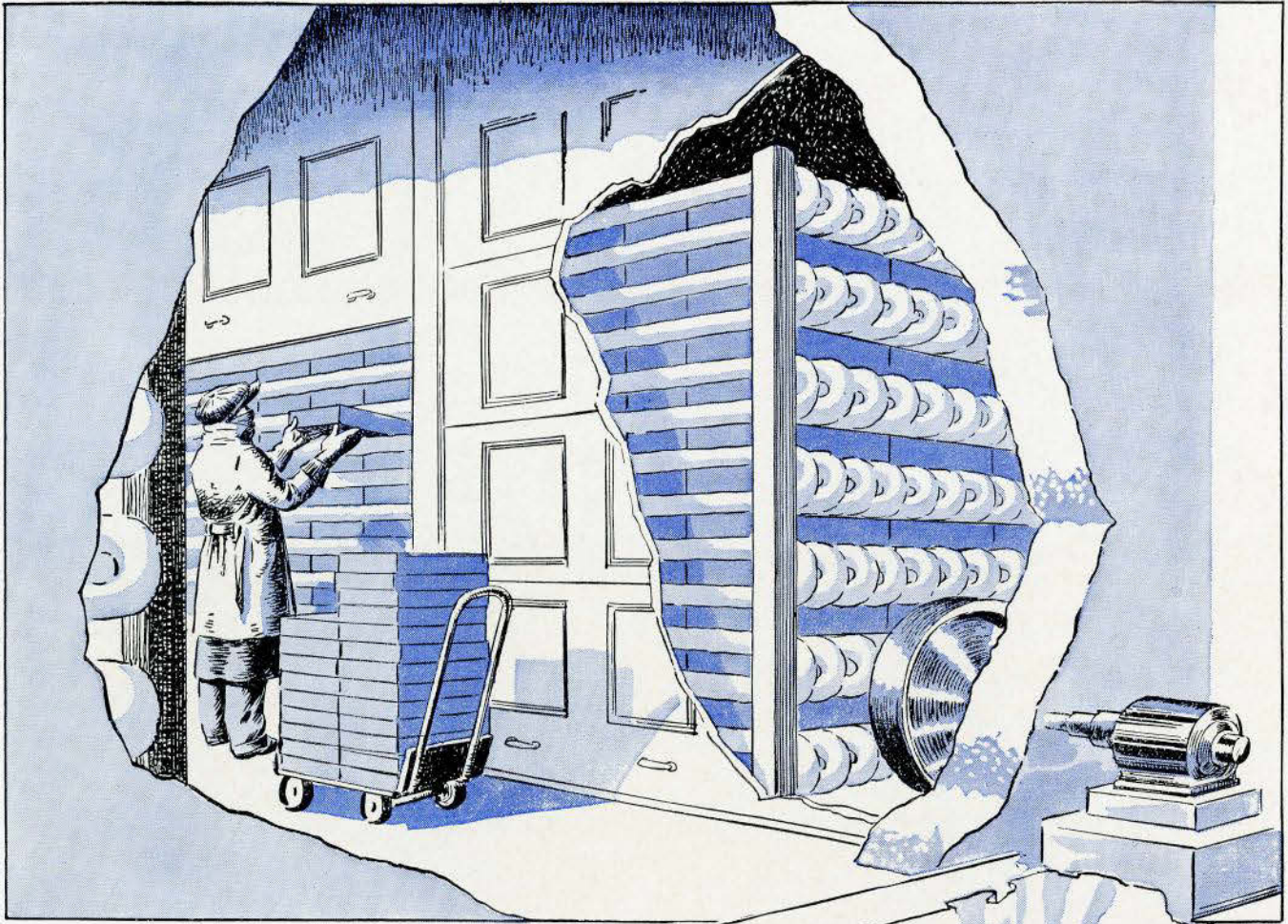


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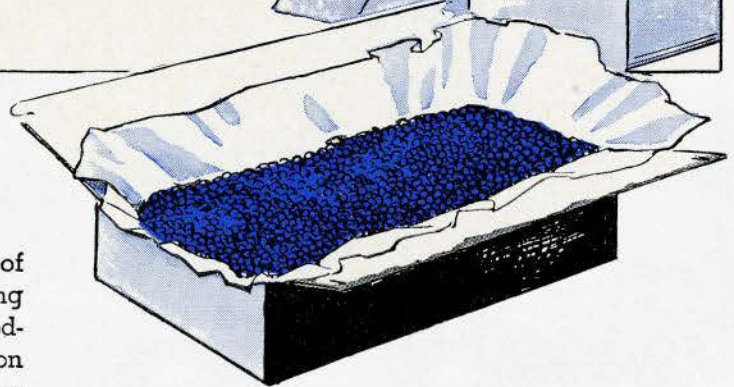
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# JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

Serial No. 238

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# R. A. I. C JOURNAL

J U N E 1 9 4 5

**I**N the past five years nothing has given us greater pleasure than those issues of the *Journal* that dealt with Housing and Planning in the Brave New World, and with the return of troops from overseas. That happy day has arrived for all but the younger service men who have volunteered for the Pacific. We can now welcome home many architects who have served their country well in all European battle fields, as well as on the home front in the construction programme of the Navy, the Army and the Air Forces. Particularly, would we like to mention Colonel Douglas Catto who commanded the Royal Regiment at Dieppe, and who has since been a prisoner of the enemy. At the moment of writing he is in Britain, but should soon be in Canada.

**W**E are not forgetting that we still have another war to fight, but the government proposals for housing, through private enterprise, indicate that, so far as Canada is concerned, the worst of the conflict is behind us. How ready are we for the returning soldiers and demobilized industrial workers? To what practical use are we putting the reports of Reconstruction Committees that laboured through the war years? As architects we are interested in large scale employment as it is obtained through Housing, Town Planning and public works. We can write with knowledge of one Canadian city, Toronto. In spite of an impressive start, Toronto has now no active Planning Board, and the work of several years is in storage. The programme of essential works, with priorities, has never been acted on, and are known only to the public who took the trouble to read the report. There is no official plan on which a programme of essential public works, with provincial or federal financial assistance, could be based. Toronto has a moribund housing committee without adequate funds and without authority. Absence of a planning authority must be laid at the doorstep of the municipality which is well able to finance the process of planning and prepare adequate data. Housing is a different matter that requires federal direction. Apparently the Federal Government has decided that, in spite of the experience of the U.S. and Great Britain, not to mention all the European countries and Australia, housing in Canada will be encouraged only for those who can afford the luxury of home ownership. The bulk of the wage earning population will continue to live in outmoded and slum conditions, or will rise in the social scale by taking over the houses of those who, with government aid, will move into new dwellings. We understand that that game of musical chairs is not without its devotees in Ottawa, though it has been found to fail in every country where it has been attempted. It merely increases the perimeter of the slum, and serves as a threatened, and then a real blight on the new property contiguous to it.

**I** think it is true to say that the only post-war programme of most Canadian cities lies in "deferred maintenance". That is a piece meal job requiring no planning, but priorities. Without homes to go to, and without the necessary capital to own one, will our demobilized forces be content with road repairs and sewer improvements even if a year or more of such employment can be guaranteed?

**I**T seems likely that, in Canada, the higher government officials have no conception of what low rental housing has done for American and British cities. They probably have never seen a housing scheme in operation. Neither in Britain nor in the United States, does housing come under a Ministry of Finance. One has nothing but praise for a department that looks for a profit on all public undertakings in which a financial return is realizable, but surely shelter for those who cannot afford it; the bulk of the Canadian wage earners, is not one of them. In England, housing is a department of the Ministry of Health, and is looked upon, like children's allowances, as something necessary for the health and welfare of the nation. The elimination of disease and crime, and the reduction of fire hazards through fire-proof building are an essential public service, the results of which can be measured in human happiness as well as in dollars and cents. The financial return is not directly felt by the Federal Government, but can be measured, and has been measured, by municipalities throughout the United States and elsewhere, in lower hospital costs and lower police and fire services. It is a matter for regret that the many groups of enthusiastic citizens of all political persuasions who were ready to give their time and energy in the prosecution of a housing programme for the lower income third of the population are now dissolving in face of a programme, based on private enterprise, that cannot possibly affect any but the middle third. We would respectfully suggest that as the Government begins its new period of office, the Minister take a few days off in almost any State in the Union to see what real housing can do for a community.

*Editor.*

# THE FUTURE OF ARCHITECT-ENGINEER RELATIONS

By ROBERT F. LEGGET

*An Address given at the 55th Annual Meeting of the Ontario Association of Architects*

**Robert F. Legget, Associate Professor of Civil Engineering, The University of Toronto; British born, graduate in civil engineering, The University of Liverpool, Master of Engineering 1927; practical experience in Westminster, (London), Scotland, and Canada. Came to Canada early in 1929; now ventures to call himself a Canadian.**

Mr. President, Ladies and Gentlemen: At the outset, I must admit that this talk today is going to be one of the most difficult assignments I have ever undertaken. My one reason for accepting the task is that the request to do so came from my good friend and neighbour, Mr. J. P. Hynes, to refuse whom I found to be impossible. I find myself amongst old friends again today but I come to you with diffidence in view of the subject given to me, not selected by me—diffidence which you will understand when you recall that I am to speak about "The Future of Architect-Engineer Relations". Another friend, upon hearing that this was to be the subject of my talk, told me that this would inevitably be the last time I ever appeared before you; this would probably be a good thing for the Association!

Seriously speaking, however, there are many good reasons for considering this important topic at this time, some favourable and some unfavourable. As we review these reasons, in two groups, it will be seen that the present is indeed an opportune time for us to meet together and discuss quite frankly the future relation of our two professions. In the first place, I would remind you that much of the magnificent construction work carried out in the United States during the war emergency has been carried out through the medium of what have been called officially "architect-engineer organizations". So far as I know, that is the first modern official use of the joint term which some of us regard so hopefully. Some of you will know, far better than I, the success which has attended these joint architect-engineer enterprises, the flexibility of the organizations thus formed, and the quite remarkable achievements resulting from this joint form of endeavour.

Secondly, there has recently been a great advance in architect-engineer co-operation in Great Britain, an advance typified perhaps by a recent paper describing the design and construction of a new civic centre for the city of Birmingham, appearing in the May, 1944, issue of the *Journal of the Institution of Civil Engineers*. The design of this large project was awarded, after competition, to an architect but there was immediately appointed also a consulting engineer to work in conjunction with the architect, the distinguished city engineer of Birmingham receiving this appointment. The paper was written jointly by the engineer and architect and explains how they had worked out together a successful scheme of co-operation. It is not for me to discuss the aesthetics of the building resulting from this co-operation but since the design was the result of an architectural competition, you will perhaps not blame the engineer if the appearance of the building is not all that you would desire!

Some of you may know that in a leading civil engineering journal (*Engineering News-Record of New York*) there were recently featured two articles, the one by an architect and the other by an engineer, explaining how the authors had co-operated in the design of a new nurses' home for one of the New York hospitals. Co-operation was of the very closest type, starting with the initial planning which was co-ordinated with structural requirements which were, in turn, correlated with the detailed planning of the structure. Both engineer and architect

testify to the fine results thus achieved; since the articles have now been reprinted in the *Journal of the Royal Architectural Institute of Canada*, you will be familiar with the interesting story they tell.

Consider next some developments in our own country. It is not the usual practice in either Great Britain or the United States for architectural training to be closely allied with engineering training whereas in Canada, as you will know, three of our four schools of architecture are parts of the respective engineering faculties of Universities. The co-operation thus obtained between architectural and engineering staffs is very close and, to my own knowledge, very harmonious. This is, to me, a most significant fact as is also the recent move by McGill University to have all their architectural students take their first year of study in common with engineering students. This move is debatable but I, for one, regard it as a significant advance.

Finally, on this side of our balance sheet, there is the existence in this province of a joint committee of your Association and of the Association of Professional Engineers of Ontario. While the history of the committee is short, and perhaps not yet as fruitful as some would like to see, yet the committee does exist and does work and I know that I am not alone in hoping that its work will develop and be productive of much good. Correspondingly, and quite seriously, the fact that the two associations have the same legal adviser is, to me, rather more than a mere coincidence; it is something, I think, upon which we can congratulate ourselves corporately.

There, gentlemen, you have what is a most impressive record of favourable features of the field now under review. But there is another side to the question. Thinking about what I should say about it this afternoon, I took counsel with those whose age and experience enable me to rely heavily upon their guidance and their advice. Each one has given me the same advice—to "pull no punches" (if you will pardon the expression) but to speak quite frankly about the situation as I see it, since only by frank discussion can we advance the cause we have at heart.

Turning to unfavourable features, then, there is first the tragically unfortunate legal case in the province of Quebec in which, as you know, the architects of Quebec are suing a professional engineer for designing an industrial building. No one questions the design of the building, aesthetically or structurally. The point at issue is that it was designed by a member of the engineering association instead of by a member of the architectural association. The lawsuit has achieved a certain notoriety, as many lawsuits do, and has even been described as an example of the professions washing their dirty linen in public.

There is another recent lawsuit of interest to us today of which you may not have heard. In the state of Illinois action was recently taken by a taxpayer before the Supreme Court of the state to have the Professional Engineers Act of Illinois declared invalid. The Act was passed in 1941; the action was taken in 1943 and the Court declared the Act to be invalid, with the result that the Professional Engineers' Association of Illinois had to be disbanded. All the work which it had started was nullified; all dues had to be returned; and the entire situation with regard to the licensing of professional engineers had to be reinvestigated. You will ask what this has got to do with our subject today. Just this, that the action is said to have been instigated by architects of the state of Illinois. I know quite well that you would not approve of any such procedure, but it did take place, according to reports, with the result that the progress of the profession of engineering, not only in Illinois but in

the United States generally, has been retarded more seriously than one cares to contemplate.

Turning to Ontario, our Association of Professional Engineers has been steadily working at strengthening the engineering profession in the province. The Association works against considerable difficulties, since the relevant Act was made really effective as recently as 1938, at which time there had to be applied again that unfortunate procedure known generally as the "Grandfather Clause". Consequently, there are in the Association—and this is admitted quite frankly—men who could not have been admitted had they not come in under this special clause. Since 1938, however, the Act has been strictly applied especially with regard to entrance requirements and it is therefore singularly unfortunate when requests are made to the Association for admission to its membership of men who cannot, under any circumstances, be regarded as eligible for membership. It is rather more than unfortunate when these requests, or endorsements of applications, are made by architects of the province. Engineers do not like to turn down the requests of fellow professional men but under such circumstances, they have no alternative; I am sure that your Association would act similarly in the reverse situation.

On the other hand, for I must try to hold the balance evenly, I admit that we engineers know that recently, through an unusual combination of circumstances, possibly extenuating, engineers have designed buildings in this province which can not in any way be regarded as industrial buildings. I do not attempt to defend this, but merely bring it forward as one of the complicating factors, realizing how you must feel about it.

There is a further point which affects both professions. During the war emergency, and due to the fact that we in Canada have not carried out our public construction through the medium of architect-engineer organizations, we have had much important war building work done directly by contracting organizations which have, themselves, engaged engineers and architects and paid them directly. The practice will call for further mention later but I mention it now as one of the unfortunate features of the present scene.

There, gentlemen, is a brief sketch of the present situation, as I see it, and against such a background I want to suggest to you that it is just about time that the two professions sat down to discuss, quite seriously, their common problems. I say this with two main reasons in mind. We all pray and hope that we are within sight of the end of the fighting in Europe at least, and therefore of the post-war period for which so much planning is being done and talked about. We all know that no matter what ideas we may have about post-war planning, whether we think that some degree of government intervention is necessary or that private industry must be relied upon primarily, we will all agree that an important part of post-war activity must be a large programme of public works construction, properly planned and controlled so as to fit in with general economic development. We all will want to see such public works carried out in the best manner possible, with adequate planning, proper specifying and utilizing the very best forms of construction. Surely this means that engineers and architects must waste no time in arguing amongst themselves as to who is going to be "top dog" but that rather they must look forward to serving the community in this great effort that lies ahead, working together in the fullest and most fruitful co-operation?

In the second place, it seems to many people, and very probably to all those present today, that the time has come when this country is going to accept at long last the general concept of community planning. I am personally quite convinced that community planning or town planning is no more the private preserve of the architect than it is of the engineer and I deplore greatly any suggestions to the contrary. Community planning calls essentially for the combined skills of both professions; even with this joint effort, the task ahead will still be a difficult one. If we admit this, and if planning is to mean anything to Canada,

then the two professions have got to be able to work harmoniously together.

If we now turn from future possibilities to the actual situation as it exists today, we must admit that there does exist a great lack of mutual appreciation which is in itself perhaps the greatest obstacle to the advance which we would like to contemplate. You will have observed that I am speaking of the structural engineer when I speak of engineers in general (except in the case of town planning) since it is he who poses the greatest problems for you. Would you not admit that there are many architects who are often plagued with the fear that structural engineers may obtain design jobs which they feel should by right be theirs? On the other hand, engineers, it must be admitted, generally lack a proper appreciation of aesthetics. Many engineers do not properly appreciate the function which architects have not only in the community as a whole but in relation to the structural design of buildings. And there are also engineers who think that some architects presume upon themselves too much in regard to building planning and design. But there are architects (none here today I am sure) who regard engineers as rude and ugly fellows who have no proper sense of beauty and whose only thought in design is to select the most economical member irrespective of all other considerations. Yet again, and once more I am trying to hold the balance even, there are engineers who think that beauty in buildings is something which can be applied externally in the same way as lipstick and powder are supposed, by some, to improve that which Nature has already made beautiful. There are those who think of the architect as merely providing the "trimmings" to a building.

If you will agree that these are some of our more pressing difficulties, then you will see that we do have posed for us a problem, and a problem, as I see it, of definition. What do you mean by an Architect? What do you mean by a Civil Engineer, or more specifically, a Structural Engineer? Where does the practice of one end and that of the other begin? This is not a new question. There may be some of you who have on your bookshelves a delightful book entitled "The Illustrated Handbook of Architecture" published ninety years ago in the year 1855 and compiled by a Mr. John Ferguson. He discusses this problem; but he has the solution. He shows in a beautifully executed woodcut a row of warehouses, exactly the same in form throughout but varying from severe plainness at one end, with no decoration at all, to the most elaborately decorated and embellished finish at the other, in the very worst Victorian tradition. You can imagine the vividness of the gradation from the one end to the other. And the one end, says Mr. Ferguson, is civil engineering, the other being architecture; which is which you must decide for yourselves. Another suggestion, also from the writings of an architect (and I can only quote from architects today) is that modern architecture began as soon as the designer of a building attempted to make his building look nice. Naturally, I do not accept that definition; I mention it to emphasize that this difficulty which we face is a complex one and is nothing new.

Did time permit, I would like to ask all of you to write down, as clearly and distinctly as you could, just what you consider an architect and a civil engineer to be, and so to define exactly the border line separating their respective fields of endeavour. I have never yet met anyone who would essay this exercise in definition so that, by implication, there would appear to be a considerable overlap of the two professional functions. Whenever that occurs, you are bound to get friction unless there is the best of understanding and goodwill on the two sides of the common ground.

Sometimes it is profitable to look backwards but in this case we run into the question of terminology as soon as we do so. I think that you will agree that before the Renaissance there was no problem since there was then no difference between civil engineering and architecture either in function or in name.

The "master builder" then held sway, whatever he may have been called. (You will know that the Latin word "architectura" was used in a very wide sense indeed). Looking next at the start of the Industrial Revolution, there were then many great builders whom I would hesitate to classify as either civil engineers or architects; they were both. It has been suggested, by an architect, that Sir Christopher Wren was more a civil engineer than he was an architect. We look upon Sir John Rennie as an engineer, and yet he designed Waterloo Bridge, universally acclaimed as one of the most beautiful bridges of all time. We look upon Thomas Telford as the "Father of Civil Engineering" and yet much of his work would be classed today as architecture. Some of you will have seen some of his bridges and you will agree that even today they can be admired not only for the workmanship in them but also for their simplicity and striking beauty of design.

I feel that in this, as in so many other questions, we can gain much more by looking ahead than by looking backwards. For as we look back, we have to view the intermediate years in which the two professions made their respective ways without any regard for the other, with results that were sometimes disconcerting. There is a large bridge in India, for example, which is one of the most hideous structural monstrosities which it is possible to conceive, being almost the ugliest thing of which I know. If I asked for your frank opinions, possibly you would be willing to admit that there are still buildings, especially of the Victorian era, which do not quite conform to the best aesthetic requirements. And possibly even I may point out that there may have been one or two buildings of the recent past which did not conform to basic structural requirements, our National Museum Building at Ottawa being a prize example. Some of you may know that a large part of the entrance tower had to be removed because of excessive settlement. No! Looking backward is not very helpful. Let us rather spend our remaining time by looking ahead.

I have tried to think through for myself, and to study what is involved when we talk about the design of a building, or indeed, any other structure. The two best analyses which I have come across are these. One author suggests that design involves first, scientific planning; secondly, scientific construction; and thirdly, proper aesthetic expression, the three being perfectly blended and correlated. Another useful suggestion is that structures must fulfil these functional requirements: they must provide sufficient permanence for the purpose for which they are erected; they must be reasonably economic; and they must be aesthetically satisfying. Whichever suggestion appeals to you the more, I feel that together they give a good picture of what is involved in building design, and in so doing, they emphasize the very difficulty which we are considering for, in these days of complex specialization, to have one man capable of giving full expression to all of these functional requirements is to expect the impossible.

If you accept the suggestions as reasonable, then you will again be led to admit that you cannot draw a hard and fast line between architecture and civil engineering. Let us admit that between the design of a dam and that of a church there is, of course, a very great difference. Nobody would seriously suggest that the same type of training would fit a man to design two such dissimilar structures. But in between such extreme cases we come to our difficulties and, if we admit that there are difficulties, we go a long way towards solving them.

We must consider the design of what we may term the intermediate type of structure, including most modern buildings, in a practical way, difficult though this may be. The usual procedure at present is for an owner to engage a professional architect or a professional engineer and to ask him to prepare the plans for the project he has in mind. When the plans are ready, construction may proceed, usually under the supervision of the professional man concerned. In the case of the architect, it is usual for him, in all but small buildings, to receive assistance

in some way in connection with the structural design (and, of course, with the mechanical and electrical equipment about which there is little question so that such work need not be considered in detail). Consider the ways in which this structural assistance is obtained.

I have heard of one case in which a very eminent and senior engineer, renowned for his structural work, was asked by an architect to come and work for him on some building work at a rate of two dollars and fifty cents an hour. I know of another case, not in Ontario, in which the entire structural design of an unusual reinforced concrete church was carried out by a firm of consulting engineers, and its erection supervised by them, at the request of the appointed architects who could not themselves carry out the design but attended merely to the interior decoration and outside finish of the structure. The fee given to the engineers was \$1,600; the architect's fee was \$15,000. Then again, I know of a very great city (not Toronto) in which at one time, so I was advised, there were only two architectural offices which did not have all their structural steel designing done for them, at no apparent cost, by the local fabricated steel company utilizing the so-called "free-engineering" service provided by this industrial organization.

Let me ask you if it is any wonder that, in view of facts such as these, there are misunderstandings in the minds of many engineers with regard to architectural practice? Let me hasten to add that I think, and hope, that the cases I have cited are exceptions; I know that there are many cases of an equally satisfactory nature which could also be cited. Let me add, too, that there are probably just as many abuses on the other side. There are structural engineers, I have no doubt, who are employed to design structures in no way connected with engineering and who think that they can attend to "architectural details" with the aid of an architectural draftsman. They probably think that by adding a few "frills" to their structural design they are "taking care of the architecture"—as it is said—instead of approaching their problem of design fundamentally, consideration of architectural planning going hand in hand with structural design.

Here, then, is a very practical difficulty. It is complicated, you will wish to tell me, by the fact that the usual client does not like to have to pay two separate organizations for preparing the design of his building and that, therefore, it is only natural for the architect to be responsible for the whole job, taking care of its engineering features as best he may. I admit the objection, but I would ask you to leave on one side, for the moment, the somewhat mundane matter of payment for services (important as it is) in order to consider how tragically unfortunate is misunderstanding and even ill-will between the two professions such as is generated by the practices I have described.

It leads inevitably to a definite deterioration in the public relations of our two professions, because sooner or later the public find out about such things. Correspondingly, by carrying out building work without the fullest co-operation, we may not obtain the best possible results: in most cases we will not do so. It is possible, of course, to get quite satisfactory and indeed good work even without the co-operation I envisage. The structural design work I have mentioned, even if carried out in devious ways, is usually competent; many fine buildings testify to this. Some of you may remember John Buchan's fine tribute to the strange beauty of prairie grain elevators, designed without benefit of architectural advice. And some of you may know the strange story of those strikingly beautiful steel towers of the George Washington suspension bridge across the Hudson River at New York, how the steelwork was designed as economically as possible with no thought of it being exposed to view, masonry casings being planned for the two great towers. Upon erection of the steel, however, the towers were seen to be so fine in appearance that the masonry casings were abandoned, the lower courses still in view today providing mute

testimony to the aesthetic soundness of at least this piece of engineering design!

These, you may say, are chance results. I will agree but I think that they should be mentioned if only because the picture is not wholly black. Good work is achieved under our present arrangements but there would be few, I think, who will question the assertion that the present situation can be improved. I would go further and suggest that if it is not improved, then it will deteriorate.

Before coming to the conclusion of the matter, there is one further aspect that should be mentioned. There are ways of carrying out building construction other than by the employment of either professional architects or engineers! There is the practice, common in some countries and recently seen in Canada, of an owner going directly to a building contractor and asking him to erect a building in a similar way to the now familiar procedure of the speculative house builder. In the hands of responsible contractors who will engage professional men to prepare the necessary designs, the results may sometimes be satisfactory. But I would ask you to consider what might happen if the spread of this practice led to its use by contractors who were not responsible and who did not employ professionally qualified designers. Fundamentally, in any case, the practice is unsound. There should be a professional man between owner and contractor and the designer should be free, entirely, to select the design which will best suit the owner and not be forced to use one which meets the contractor's convenience.

There is still another possibility. In certain countries there have developed some very large organizations which will contract not to build a building with the aid of an architect or engineer, but to do the whole thing themselves. In fact, it is possible now to order certain types of building from certain of these organizations in other countries just as you would order ready made shoes. This practice has, in recent years, been spreading at a remarkable rate. Again, although in the hands of a reputable company, the method has something to commend it, I think that most of us would agree that in general, and in principle, the method is unsound, the aid of a professional intermediary being essential to sound results.

What solution have I to offer? What do I think is the future of architect-engineer relations? I have been a long time in getting to the question but I think you will agree that it cannot usefully be considered without such considerations as we have been making. There is, in my opinion, only one possible answer, namely the development of the closest possible co-operation between the members of the two professions. You will ask me how is this to be attained. In answer, all I can do is to offer some suggestions and this I now do, with diffidence, but in the certainty that if closer co-operation is not attained, then both professions will suffer, as will also the community which they serve.

First, and perhaps foremost, we must inculcate in the minds of the younger members of each profession a healthy and proper respect for the members of the other. That is why I regard so highly the delightful co-operation which exists at the University of Toronto between architects and engineers, on the level of both students and staff. That is why I regard as so desirable similar co-operation existing at other universities in Canada.

Secondly, we must and can look forward to proper co-operation of the two professions within the frameworks of the large organizations, public and private, to which our economic system is committed. I have in mind, of course, the magnificent achievements of the Tennessee Valley Authority, with which you will be familiar, wherein the engineering and architectural design organizations have worked hand in hand from the very inception of each of the great undertakings of the Authority. When internal co-operation is not possible, then we may look forward to similar co-operation of professional engineers and

architects employed by large organizations. As an example, I would mention the great power house of the Shipshaw project in Quebec which, I happen to know, was planned by the consulting engineers in close association with a consulting architect.

In the third place, I think that co-operation of the two professions will be greatly assisted if the members of the two professions try to know something about the work and practices of the other so that all may speak with more understanding about their sister profession, and in addition profit in their own work by experience in a parallel field. Even though it be a digression, I think that I should mention some specific examples to illustrate what I have in mind. Speaking as an engineer, I think first of recent advances in structural design to keep in touch with which takes a structural engineer all his time. Is full advantage of them being taken in the building field? Great advance can be looked for in applications of welding, in the use of new materials, and of pre-stressed concrete; they should be reflected in building design. Similarly with foundation design; instead of being "left to the contractor" it should be a matter appreciated by the architect so that he knows when he can use modern design methods in association with those who have studied foundation engineering. Perhaps the feature of architectural practice which perplexes engineers more than any other is the omission of schedules of quantities from architectural contract documents, and the corresponding reliance of many architects upon friendly contractors for preparing their preliminary estimates of cost. Quantities are an almost essential part of all normal engineering contract documents for upon the basis they provide, the engineer prepares his own preliminary estimate of cost. It is when engineers, on the staffs of contractors, have to prepare preliminary estimates of cost for architects, and then know that eight or nine contracting firms are all engaged on taking off quantities from the one set of architectural contract drawings, that they begin to entertain those ideas about the architectural profession the elimination of which we are considering today. Correspondingly, engineers would do well to remember that when they come to plan anything connected with buildings, there is another profession specially skilled in this work. If they would do this, they would eliminate many, many mistakes in the way of wrong sized rooms, wrongly shaped doorways, poor windows and the many other building details, the correct design of which is commonplace to architects. And above all, they can well remember that architectural practice if properly appreciated can assist them immeasurably with the aesthetics of the structures they must design themselves.

Finally, I think that it is essential to the future well-being of the two professions that the two should learn to work together on comparable footings, the architect not "employing" an engineer as if he were a junior member of his own staff, the engineer not "employing" the architect as he would a draftsman. Admittedly, one man must be in control; in building work this will usually be the architect. But surely he can regard his engineering collaborator as a professional associate? You will say that this is difficult because of financial arrangements but I do not think that this is the case necessarily. As the ultimate objective, and the perfect solution, I envisage a return to the idea of the master builder—the existence of firms in which architects and engineers are joint partners, the architect knowing something about engineering, the engineer knowing something about architecture, but both co-operating, on an equal footing, in all their work. You will say that I am a "young man dreaming dreams". Possibly so, but this dream is a very vivid one, and I voice it to you since I am convinced that it does provide a solution to real difficulties, and that it is a suggestion with great possibilities for the future well-being of our two professions.

And not only of our professions, for surely we should look beyond the narrow confines of our professional fields? We are

*(Continued on page 133)*



# MUNICIPALITIES AND HOUSING

By K. GRANT CRAWFORD

*An Address given at the 55th Annual Meeting of the Ontario Association of Architects*

**K. Grant Crawford, M.A., born in Nova Scotia, graduate of University of Western Ontario in Political Science, City Clerk of London, Ontario, 1934-1944, appointed assistant Professor of Local Government and Director of the Institute of Local Government, Queen's University, 1945, Secretary-Treasurer of the Ontario Chapter of the Municipal Finance Officers' Association of the United States and Canada. The Institute of Local Government established last year is devoted to study and research in the problems of local government and the relation between municipal and other levels of government.**

Mr. President, Madame, and Gentlemen:

(I was going to say "Gentlemen and Members of the Hamilton Chapter.") I would like to thank you, Mr. Page, for that glowing introduction. Faced as I was coming here tonight with so much intellectual acumen and such an aggregation of professional competence, I was somewhat nonplussed as to how I would approach the situation and as to how I would fit in. However, when the head waiter came up to me with the bill and said, "Would you like to add a percentage for the waiters?", I felt I must have looked like an architect! My apologies to Mr. Hynes. I think you are quite right, sir, that the Ontario Association of Architects should have more architectural speakers.

I know that the thing to say at a gathering of this kind is that I am very glad to be here and that it is an honour to be asked to speak to you. Well, I am glad to be here, because I got a free meal at noon and I got one tonight. I can hardly accept the invitation as an honour because there was a speaker who was to have spoken to you and I am merely a substitute. Some indication of the manpower shortage in this country today!

Now, knowing architects, and I have had some considerable experience with them—some of which has been fortunate, and some otherwise—I do not propose to tell you anything tonight. I have learned by experience that you cannot tell a doctor how to operate and you cannot tell a solicitor what the law is, and you cannot tell an architect anything.

And I would like to make it perfectly clear before I start to speak that I am not a housing expert. I have my weaknesses, but housing and town planning are not two of them.

I know something about the housing shortage because I happen to have lived for some months in Kingston and I have busily engaged myself for six months looking for a house and I have not found one yet and I presume I will have another six months before I get one—The "Pen" is full—ex-public employees and ex-medical men, and probably a sprinkling of architects. And I believe that Hamilton is well represented!

Now, I have one or two ideas that I would like to get across to you this evening. One or two is all that you should offer any audience in one evening, and it is necessary of course that I should take some considerable time in introduction, saving my two ideas for the end. Ideas, if the lady present will excuse me—are something like children, as the doctor explained to the matron—they are easy to conceive but not so easy to deliver. And I may have some difficulty in trying to get these one or two ideas across to you, but I shall try and do my best. Nor do I expect all of you, nor perhaps any of you, to agree with my ideas. I am to a degree, I think, in this modern and degenerate age, a voice crying in the wilderness—not to be confused with John the Baptist, because I don't propose to lose my head.

Now, for those of you who wish to retire now or wish to have a little snooze sitting at the table, I propose to outline what line my remarks are going to follow. I might say, by way of apology, Mr. President, not forgetting the desire of architects for a precise, exact record, I did not put my speech in written form. I know you like to have a man get up and read for three-quarters of an hour, I apologize.

So that you might have some idea what line I propose to follow, I propose to ask some seven questions, and in part, to give you the answers to them, the first six leading up to the seventh.

The questions I propose to discuss are:

*First:* What is the housing problem? And that should be of interest to you, first as architects, and second—if architects may be so considered—as good citizens.

*Second:* Why is housing a public issue?

*Third:* What has been done about housing of recent years in Canada?—A subject of which you probably know far more than I do.

*Fourth:* Something on the recommendations of the Sub-Committee on Housing and Community Planning.

*Fifth:* How are Municipalities connected with or interested in housing?

*Sixth:* What has been the municipal experience in housing?

*Seventh:* What is a Municipality's responsibility in housing?

Now for those of you who report regularly at church I will endeavour to undertake to be through at quarter to eleven which gives you 33 minutes which you will have to endure, but at least you can make your plans on that basis and if I run over that time, you are quite at liberty to get up and tell me I am going overtime.

First of all, what is the housing problem?

The housing problem is very, very simple. The solution isn't so simple. But the problem itself is that there is not adequate housing to meet the requirements of our people. That's very simple. Why is there not? Is it that we cannot produce the houses? Under normal circumstances, aside from the fact that we have wartime shortages, there is no question but what in this country we can produce the housing that is needed to house our people. We have shown during this war just what we can do in the way of production. Then, if we can produce sufficient houses, the next question is,—Is there a demand? And there is no question but what there is the demand for houses. But the sticker—if I may use that vulgar term—is that while there is a demand there is not what economists describe as an effective demand. It is one thing to have a demand and another thing to have an effective demand. There is a demand for more liquor, but only those who have unused liquor permits create an effective demand. I thought that would get . . . (Laughter).

Who are the people who want houses? There are four groups. There are the people who can afford to buy or build houses, affluent, well-fixed financially—even such as yourselves. That creates an effective demand under normal circumstances, and they create no particular problem.

Then we have the people who would like to own or build houses but whose finances will not permit them to do so under normal circumstances. That demand is not fully effective. They need assistance in financing. What kind of assistance? They need lower construction costs. They need lower mortgage interest rates. They need a longer time than is normal under our system for repayment. They need an extension of credit so that

the amount of the down payment is not so great. Given those factors their demand becomes effective.

A third group are those people who want to rent houses and who can afford to do so, and the demand under normal conditions will be met. There is an effective demand. They have the money to rent houses, and men in the business of making a profit will build houses to rent to them provided of course, that rent control does not continue indefinitely and provided that real estate taxes don't crucify real estate ownership.

Then, there is the fourth group with which we are, I think, most concerned, the group who want houses, the group who need houses, but the group who cannot pay an economic rent for houses, and who never have much hope of being able to do so. They haven't the income and they probably never will have the income to do so.

Now there are two ways of dealing with that group. One is to reduce the rent to the point where they can pay. That, by experts, is generally fixed on an average of about \$12 a month and you can't build houses, apparently—I am not a house builder—on a profitable basis and rent them at \$12 a month.

There is another solution to that problem which does not seem to have been approached by two of our major parties. I am not so sure the third might not arrive at it. And that is, raise the income to the point where they can afford an economic rent. That opens up a wide question which I do not propose to deal with.

The solution for that group who can't afford to pay the rent is to reduce the rent, by some system, to a point where they can pay. That, I think, generally subject to any correction from my audience, is the problem.

The second question I would like to consider for the moment is,—Why is housing a public issue? For a great many years nobody thought that housing in this country was anything for the public to be concerned about. A man found a house, rented, or built a house, or found some shack to live in. But in recent years we have come to consider housing a matter of public concern. Why? Those living in Toronto have been forcibly impressed recently, with the fact that shelter from the Winter is a matter of vital concern in this climate, and people cannot be left without some kind of shelter.

One of the reasons why housing is becoming a matter of public interest is that poor, unsanitary, overcrowded, inadequate housing constitutes a burden on a community. Now what are some of the results? Ill health, the rapid spread of communicable diseases, increased hospitalization costs, partly as a result of the spread of disease in overcrowded dwellings, and partly because of the prolonged hospitalization, because people cannot be sent home from hospital to recuperate under conditions that exist in houses that are unsatisfactory. There is an increased fire hazard for the community. It is alleged, and I believe with a certain amount of justification, that crime, and that present popular object of concern, juvenile delinquency, are to an extent the result of inadequate housing. And from that follow increased costs both in the administration of the police department and justice, but also in the cost of crime to the country, not in the suppression of crime alone but in the crime itself. And finally we have the lowered morale of people who live in unsatisfactory houses. And lowered morale, whatever morale may be defined as, you know what I am driving at, has a very definite influence in a democracy. We purport to be operating a democracy. A democracy presumes participation in government by all of its people who are of mature years. If any considerable group of your people are housed under conditions which are sufficiently unsatisfactory as to lower their morale, you have a very definitely weak spot in your democratic organization. You have a group who are subject to rabble rousing and subversive influences and a group who are not able to perform their proper political function without bias.

A second reason why housing is a matter of public concern is that we have been developing in this country in the last twenty-five years, perhaps longer, a social conscience. The community has developed the attitude that it is the responsibility of the community to solve problems for people who cannot solve their problems for themselves. Whether this is right or wrong depends on your own personal viewpoint. There are the old hard-boiled "laissez faire" group who take the attitude, or who are reputed to take the attitude, that the rule of the survival of the fittest is necessary if we are going to maintain ourselves as a people. At the other extreme we have the group—I won't name them—that anybody's problem almost is the problem of the state. And between those two extremes you have whatever happens to be the personal reactions of the individual who is giving the matter some thought. I am not prepared to say who is right or wrong. It may be to an extent they are both right. That is always a happy solution to the problem, as your solicitor told you this afternoon. (Laughter.)

However, regardless of how hard-boiled they may be, when it comes to a point of a poor defenceless widow and her children, even the hard-boiled says, "Somebody must get them in out of the rain." And because that attitude has developed in our community, housing has become a public issue.

And for a third reason housing has become a public issue, not as such, but because the large scale construction of houses is a weapon in the arsenal with which we can fight unemployment and depression. It is interesting to note that in the early thirties when housing was becoming a matter of public concern in the United States, it was primarily a matter of giving employment, not primarily a matter of housing. When the 1935 Housing Committee was appointed by Parliament its purpose was stated to be "To consider the inauguration of a national policy of house building, to provide employment throughout Canada and also to provide such dwelling houses as may be necessary." The supply of dwelling houses was a secondary consideration.

What has been done to supply houses? In 1935 we had the Dominion Housing Act. The main points of which were the supporting or helping of that second group we referred to. Increased credit whereby, through Dominion assistance, private lending companies increased the amount they would loan, reduced the interest rate, and reduced the down payment which the home builder had to put up.

In 1937 we had the Home Improvement Loans which was a method of improving housing and giving employment.

In 1937 we had the National Housing Act under which private loaning institutions by arrangement with the Dominion, would make a loan to the individual to enable him to build. Under Part 2 of the Act we had a system whereby limited dividend companies or municipalities could go into low rent projects; which I don't believe anybody used. And Part 3 whereby if municipalities supplied lots at \$50.00 the purchasers who built on the lots would get their taxes paid to an extent by the Dominion authorities.

Then following a survey of the housing situation by the Subcommittee on Housing and Community Planning followed by the Act of 1944 the title of which reads as follows: "An Act to promote construction of new houses, the repair and modernization of existing houses, the improvement of housing and living conditions and the expansion of employment in the Post War Period." You will notice the emphasis is switched here and employment comes in the second place, instead of first place, as in 1935, and the providing of houses comes in the first place. This Act of 1944, with which you are no doubt all familiar, provides in part for increasing the percentage which the government and private companies will loan for building houses. It again reduces the interest rate by  $\frac{1}{2}\%$ ; it extends the term for repayment in the event that community planning and zoning

meets with the approval of the Dominion. It again provides for loans for low-rent houses. You will notice that it still leaves the governments of all types clear of the house construction end of housing. We have not yet gone into governmental construction of low-rent houses. In other words, we haven't public housing.

Now the Sub-Committee on Housing and Community Planning to which I refer, made several recommendations, some of which were incorporated in the National Housing Act of 1944. They did recommend local housing authorities for low-rent housing. But among the other things they recommended was that they placed in the forefront of all housing projects town and community planning and they felt that proper planning should be a prerequisite for all loans for construction. I call your attention to that because I propose to come back to it.

The next question—How are municipalities concerned with housing? First of all, municipalities are interested in housing as they supply services which are affected by the results of poor housing. Who supplies health services in the community? The Municipality. Who supplies police service in the community? The Municipality. Who supplies fire service? The Municipality. Who supplies most of the cost of hospitals for the group which is cared for by your community? The Municipality. Who looks after the neglected, deserted, abused children, the larger portion of which comes from the group occupying poor housing? The Municipality. Who looks after the administration of welfare and relief? The Municipality. In other words, a major portion of the results of poor housing reflect themselves in the services which the Municipality supplies and performs. In other words, the results of poor housing are on the doorstep of the Municipality.

Secondly, the Municipality is interested in the matter of housing because they assume responsibility for the construction of houses, from the safety angle, so that you and the contractors don't put in half the amount of cement you should in making the concrete; that you make the walls strong enough so that the building will stand at least until the people have lived in it for some considerable time. The Municipality is responsible for seeing that the building is built with the minimum fire hazards; and with a reasonable degree of safety from a health angle in the matter of the plumbing. Municipalities also are interested in housing from their interest in zoning and community development. And finally, municipalities are interested in housing for exactly the same reason that architects are interested in housing. You may take the attitude, as was suggested this afternoon, that your main interest in life is in serving the community, and that is a commendable attitude. The Bell Telephone Company, I believe, claims the same. (Laughter.) Notwithstanding the satisfaction that is derived from serving the community, the Municipality is concerned with housing because a major portion of its income comes from taxing houses.

What has been the municipal experience with housing? I don't know how many of you can go back to 1919 and the twenties. In those years legislation was passed by the Province of Ontario which instituted what were known as Housing Commissions, in a number of municipalities. Housing Commissions were consistent in that they were mismanaged; that they had high costs; that they had poor workmanship; that they had second-rate materials, and that they had terrific losses. Not a venture in housing which would inspire any enthusiasm in any Municipality to go into the housing game at any later date.

In 1937 the Dominion authorities came along with the Home Improvement Loans with the rider added—aided and abetted in this by the Provincial authorities—that the improvements would be tax free for three years and the municipalities took the loss because they weren't able to tax them. In 1937, under the National Housing Act, municipalities were asked to prac-

tically give land at \$50 a lot to enable people to have housing. And subsequently in the forties we had Wartime Housing.

There was always an argument between the municipalities and the Wartime Housing in regard to what should be paid to the municipality and the municipalities usually felt they were short-changed. I don't propose to go into that. In view of their experience, municipalities are not too sympathetic toward housing programmes. They look on them with the same type of jaundiced eye that an architect looks at an engineer. Or looking at it from the other point of view, with the same suspicion with which an engineer looks at an architect.

Apparently in this country the limited dividend companies aren't going to go into low-rent housing and that means that apparently, as the picture stands at present, nobody is going to go into the matter of low-rent housing.

And that brings me to the point of the Municipality's responsibility for housing. We are coming rapidly—I haven't seen the latest edition of the "Star", but according to the "Home" edition, we are coming rapidly to the end of war in Europe, and just as soon as the war is over there is going to be a tremendous demand for housing. Our housing experts tell us that one-third of the tenant group in urban centres are in the group that require low-rent housing as a means of getting proper accommodation. And the pressure is going to develop after the war, in the same way as it developed after the last war, for somebody to supply that low-rent housing, and low-rent housing inevitably means it has got to be subsidized by somebody. If the tenant cannot pay a rent that is going to pay a reasonable profit then somebody has to make up the difference. That pressure is going to be put on the municipality, because the man who hasn't adequate housing is located in a municipality. If he is out of a house, he can't go and sit on the doorstep of Queen's Park and howl about housing, he can't go to Ottawa, but he can go and sit on the doorstep of the City Hall and make life miserable for the Mayor. That's where the pressure is going to develop. But it doesn't make it the responsibility of the municipality. Now you say, "Why then will the municipality become involved?"

For those of you who have either played or watched a rugby game you will have seen an end run in which one gentleman near the centre of the line throws the ball to another and he in turn to another and there is a fellow at the end of the line who gets the ball and there isn't anybody he can throw it to. Exactly what happens in government in this country. The Dominion government gets the ball and throws it to the Provincial government. The Provinces throw it to the municipalities. The municipality would throw the ball to somebody else but there is nobody else to throw it to, and they are left holding the ball. That's the way in which a great many problems have become municipal problems, because there was nobody else they could get to deal with them. Now you see why municipalities are so often the "goats".

Well, the "joker" (that's a card term) is that the majority of the voters in the municipality are not taxpayers and there is nothing that gives a man more righteous satisfaction than to be generous and charitable at somebody else's expense, and when called upon to vote on matters of this kind the voters will support the gentleman who supports ventures of this kind, because the majority of voters aren't going to pay a cent for it. It is only that minority group, that poor benighted group, who in a moment of weakness acquired property, who pay the shot.

I would like to outline to you the background of this municipal picture from two or three angles.

First—from a Constitutional point of view—you have all heard of the British North America Act. Presumably not many

of you have read it, because I noticed a great many of you had not even had an opportunity of reading the "Architects' Act" — (Laughter, Applause) — but under this Act there is a division between the Dominion and Provinces as to what are the Dominion responsibilities or powers and what are Provincial responsibilities or powers. And one of the fields of activity left exclusively to the Province is the matter of municipal government. And it is the Provinces that create municipalities and assign to the municipalities their responsibilities. And the gentlemen can stand up in the House in Ottawa with the most pontifical attitude they like and declare that housing is a municipal responsibility, but that doesn't make it so, because it is the Provinces that decide under our Constitution what is a municipal responsibility. It is true that the gentlemen at Ottawa like to say that, perhaps to ease their conscience or to encourage municipalities to go into housing, but it still does not make it a responsibility of the municipalities.

The Provinces in their wisdom 75 or 100 years ago, decided that municipalities would be supported by revenues largely derived from the real estate, and as I have mentioned before, only part of the people who live in a municipality own real estate, and a relatively small portion of the people, definitely less than half.

Now when real estate was fixed as the basis of taxation for municipalities 75 or 100 years ago—not many of you can remember—I will tell you about conditions then—the ownership of real estate was a pretty fair indication of a man's ability to pay taxes. But times have changed so that the ownership of real estate is no longer a true picture of a man's ability to pay. At the same time, amount of real estate taxable is shrinking for three reasons, first of all because of the exemptions which we have under our Provincial system—charitable institution exemption, educational institution exemption, religious institution exemption, etc., and as those expand the tax base narrows; added to the fact that in recent years there has been a vast increase, particularly since the war, in the amount of government-owned property, in many cases owned by Crown Companies. Just as soon as properties are owned by Crown Companies they cease to be taxable. And again the tax base is narrowed in. And thrown in the hands of the municipality through tax sale are more and more properties of people who cannot pay their taxes. They come into the hands of the municipality and cease to be tax-paying properties.

Let us look at the picture so far as social services are concerned. Over the past many years municipalities in this Province have developed more and more social services for two reasons, one, as I explained before, because nobody else would look after them, the ball came down the line and they were left holding the ball, and also because the Province imposed some on the municipality, such as hospitalization, care of deserted children, old age pension, mothers' allowance, public libraries, tubercular cases, relief, and health services. But they were piled on to the owner of real estate. Why? Because, and this is a bit of information that it might be well for any of you who propose to run for public office to know, if you are going to put on a new load of taxes, put it on the people who are already paying taxes, don't start on a new group. The old group won't howl as much as a new group will.

Now in 1936 a trend started in the opposite direction. The Province came along and lifted off the municipalities the cost of old age pensions and the cost of mother's allowance. About a year later it lifted the cost of tubercular patients. It granted the subsidy to municipalities and recently came the educational subsidy. The whole argument behind those changes was to give private ownership of real estate a chance to exist.

Now I ask you, is it reasonable, if a Province has adopted a policy of relieving real estate of the cost of social service,

that we should start and place another social service, low-rent housing, on the municipality? It is contrary to the whole trend in which we have been moving. It should be subsidized by those who are paying on the basis of ability to pay, and should be subsidized by some type of government which has a much wider tax base than local governments which are practically limited to the taxation of real estate.

Now those who are supporting the move will say that the services which you are obliged to maintain as municipalities will be relieved by reason of the fact that with improved housing you won't have such high police and fire and other costs. Those are very nice arguments but very difficult to prove. Like the arguments in connection with a lot of social services they sound well but it is a little difficult to measure them and prove them. In my opinion there is no justification for municipalities entering the housing field as long as municipalities' finances are on the basis which exists at the present time. To the extent that subsidizing low-rent housing is a social service, it belongs to some other unit of government and does not belong to that group which is maintained by taxes on real estate. So far as a large housing programme is designed to relieve the problem of unemployment and promote prosperity, it is still a responsibility of one of the senior governments, and not the municipality.

I do want to mention that fact that the Sub-Committee of the James Committee did make a very substantial recommendation with regard to town planning, and the part that it should play in any housing programme. And here is where the municipality can make some contribution.

First of all, in the field of town planning, and for some particular peculiar reason, architects seem to feel that they are the guardians of town planning—municipalities and their people need education in town planning. They need to be educated in a practical way on the purposes of town planning, on the possibilities of town planning, and above all on the limitations of town planning. Our people have been both undersold and oversold on town planning. Undersold in that they haven't been sold on the necessity of it, and oversold on town planning in that they have been sold on what it should do and what a heaven-on-earth planning is going to result in. And I think one of the greatest drawbacks to town planning in municipalities is that too many of the laymen are led to believe it is the solution for all our problems. When they find out it isn't, they react in the other direction. And I think there is as much overselling as underselling. Town planners have got to learn to talk in the language of the people they are talking to. No use talking way up in the clouds to local councils and citizens. You must talk their language.

Secondly, I think the quickest way to kill town planning in your local municipality is to persist with the idea, that many town planners have, that the planning body shall not be subject to the control of the local Council. Councils are getting tired having their jurisdiction encroached upon and having their authority taken away.

Another urgent need is some form of effective legislation passed in this Province to make town planning possible. If we are going to have effective legislation we have got to have a radical change in the attitude of owners of private property as to their rights in using private property. That is going to take a lot of education. I am satisfied if somebody will educate our people in the possibilities of town planning that it would reflect itself in the reaction of their elected representatives and if some group will secure adequate legislation which will make town planning possible in this Province, then the municipalities can make a contribution to the community welfare through town planning, and to housing through their town planning activities which will be within their proper sphere and will not put out of business that forgotten man, the property-owning taxpayer.

# PROPOSED JOINT COMMITTEE TO STUDY TRADE PRACTICES

*Proposed Article based on Joint Conference of Architects, Engineers and General Contractors—January 8th, 1945.*

Maintenance of present good relations and the spirit of co-operation among Architects, Engineers and Contractors, forms the basis for a proposal to set up a permanent joint committee of representatives of the three organizations—Ontario Association of Architects, Association of Professional Engineers of the Province of Ontario and the Ontario General Contractors' Association.

When formed, this joint committee would meet from time to time, as occasion might warrant, to discuss mutual problems and iron out any minor differences that might arise. It would serve a very useful purpose, and its decisions, backed by the combined strength of the parent bodies, no doubt would be of inestimable value to the Construction Industry as a whole.

With accredited representatives of the three organizations in attendance, including—R. Schofield Morris and James H. Craig, representing the Ontario Association of Architects; and F. R. Ewart and J. H. Smith, representing the Professional Engineers of the Province of Ontario, and Tullis N. Carter, W. S. P. Hannaford; W. J. Bradford, C. E. Potter and R. L. Moran, representing the Ontario General Contractors' Association, a meeting was held in January in a joint effort to improve conditions of tendering. This gathering proved quite successful and its deliberations should bear some fruit. Agreement in principle was reached on a number of points.

- (1) Tenders on alternate designs should be reduced to a minimum.

In most cases, the calling of alternative tenders is chiefly for purposes of cost finding. If that is the case, these quotations could be requested from a selected contractor, after which the design desired by the owner could be decided and tenders called in the ordinary way. It may be easily seen that estimating on more than one design takes up valuable time that might be saved.

It might also be pointed out that in many instances, alternates are composed of many trades which require compiling at the last moment under pressure, thus leaving opportunity for unfortunate errors or omissions.

- (2) Tenders should not be called until a permit has been obtained or assured from the Controller of Construction.

If tenders are called before a permit is granted, and then it is refused, there is a tremendous waste of time and effort.

If the Dominion Government continues to effect controls over the Construction Industry during the next few years, as might seem possible, it would be futile practice to call for tenders until a license has been received from Ottawa.

- (3) That only the successful bidder should be required to furnish a "break-down" of this tender.

The "break-down" of a tender involves careful study and consideration which it is usually impossible to give on the closing day on account of late bids and information. It also leaves the Contractor open to grievous errors in trying to accumulate his last minute prices and close up his tender.

An exception of this, of course, is that many Engineers work on a unit price basis, which many Contractors consider an acceptable and fair way of tendering.

- (4) That a standard closing time for Tenders appears to be desirable, and that 4 p.m. seems suitable from all viewpoints.

The chief merit in this suggestion is that it would have the effect of protecting bidders in other cities and towns. In this way, an out-of-town Contractor could be assured of receiving quotations by mail and including them in his tender.

In favour of a closing time of 4 p.m. being suitable, is the fact that the afternoon mail would then have been delivered, thus giving sufficient time for the general contractor to accept any new sub-trade prices.

- (5) That in most cases, it is desirable to include all sub-trades in the general contract because it gives the general contractor better control over the progress of the job.

The mechanical and other trades frequently are let separately, but the general contractor still must co-ordinate these trades in order to have smooth and efficient operation. If a rare circumstance should warrant such a practice, the separate trade should be turned over to the general contractor and a percentage fee added to the contract.

If a trend toward the calling of separate tenders were to become important in the construction industry, it might mean the elimination from the scene of many reputable general contractors. Obviously this would not be in the best interests of the industry.

When certain sub-trades are to be added to the general contract after the original general contract has been awarded, the specifications should state what percentage or lump sum amount should be allowed to the general contractor for handling this extra.

- (6) That differences in unit prices between additions and deductions should be recognized because additions to the contract usually involve extra overhead expense on the job, while deductions from the contract seldom reduce that overhead. Some Architects and Engineers realize this fact and request separate unit prices for both additions and deductions and we believe this practice should become standard.

The Architect, Engineer and General Contractor play an essential part in the whole construction picture, but the general contractor with his sub-trades must turn out his finest work if the building is to be enduring. All should work together as a team.

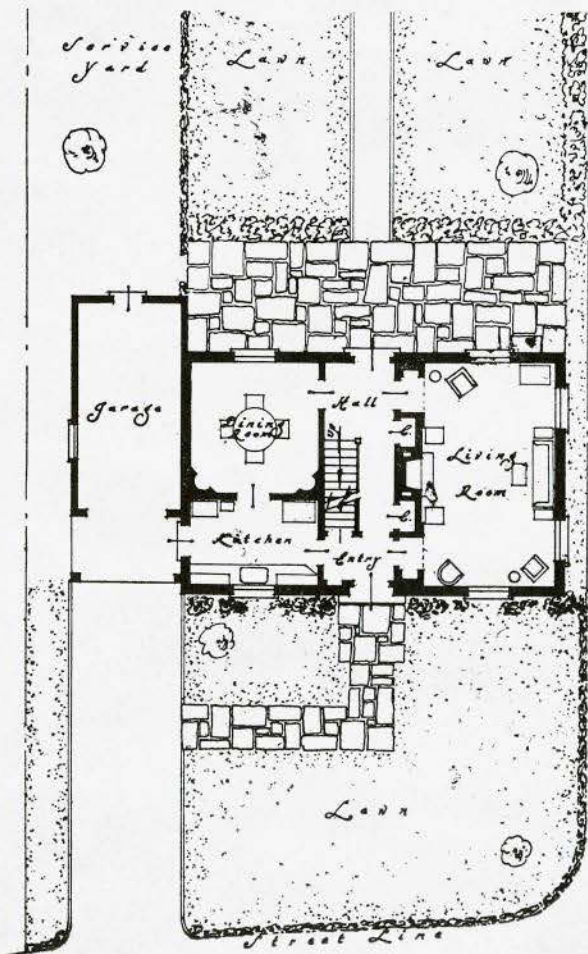
A permanent joint committee of architects, engineers and general contractors should function in a quasi-judicial capacity with definite powers to act bestowed upon it by the parent bodies. These powers should include the handling of reports of unfair practices, and their eventual disposal.

Any suggestions that might be made for the benefit of the joint committee would be gladly received.

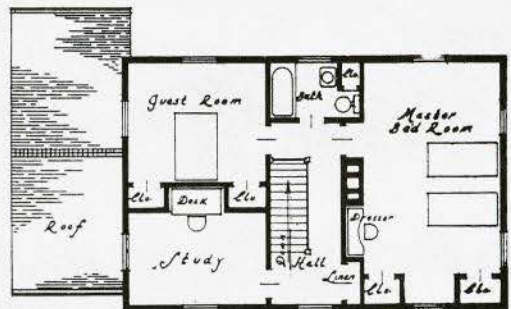


HOUSE OF MR. F. L. HILLIARD, YORK MILLS, NEAR TORONTO, ONTARIO

EARLE C. MORGAN, ARCHITECT, OF THE FIRM  
OF ADAMSON AND MORGAN, ARCHITECTS



FIRST FLOOR PLAN

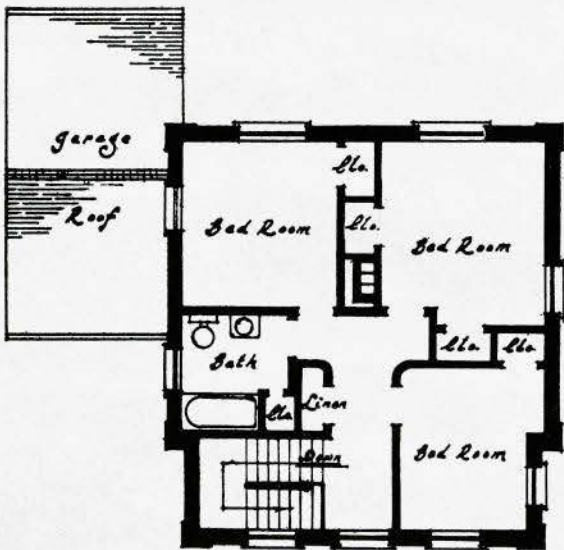


SECOND FLOOR PLAN

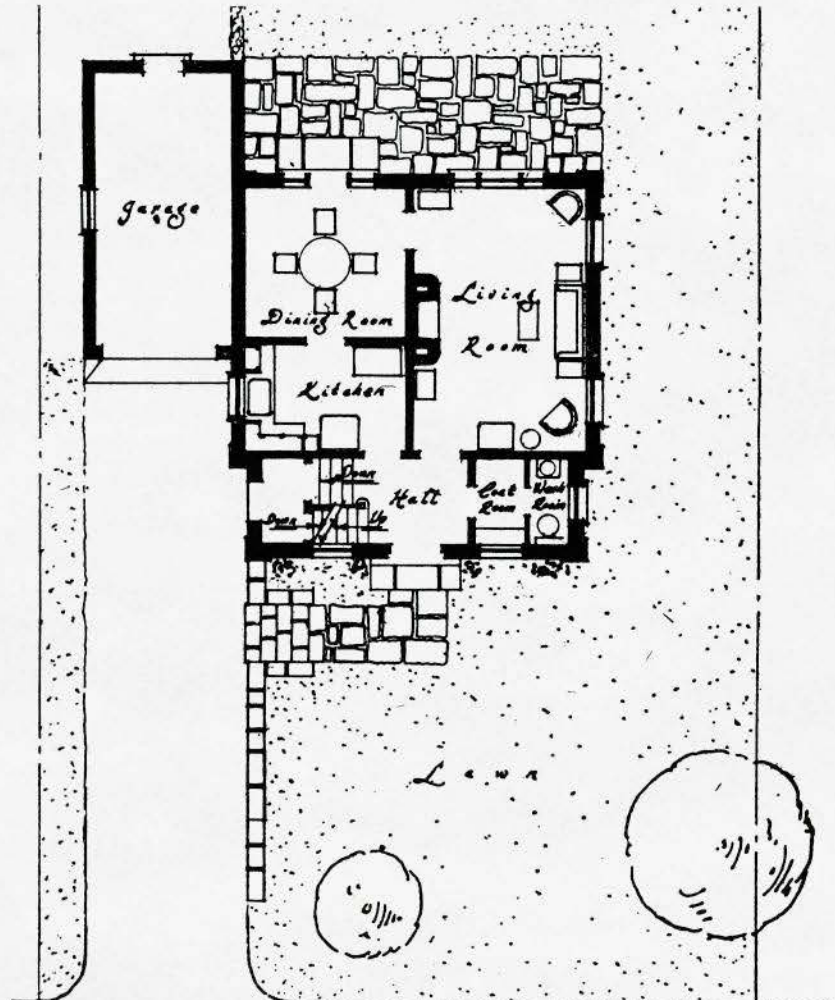


HOUSE OF MR. E. T. M. BARRATT, TORONTO, ONTARIO

EARLE C. MORGAN, ARCHITECT,  
OF THE FIRM OF ADAMSON  
AND MORGAN, ARCHITECTS



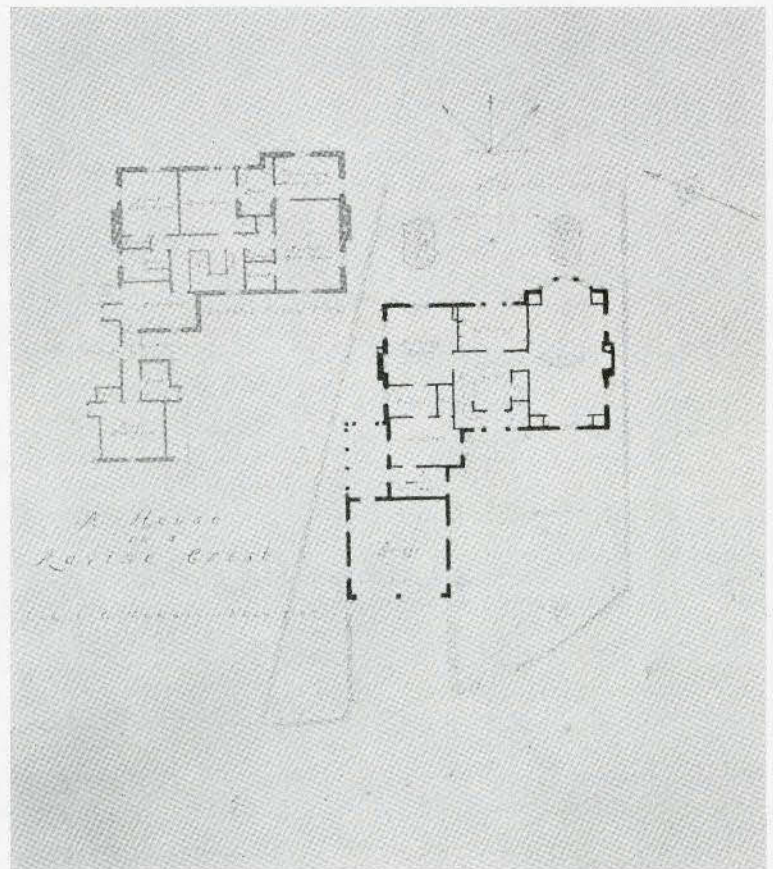
SECOND FLOOR PLAN



FIRST FLOOR PLAN



HOUSE ON RIVERVIEW DRIVE,  
TORONTO, ONTARIO



EARLE C. MORGAN, ARCHITECT,  
OF THE FIRM OF ADAMSON  
AND MORGAN, ARCHITECTS



1941 — \$1600

1945 — ?

VANCOUVER, B.C.

**GENERAL CONSTRUCTION**

This would conform with the minimum standards of the National Housing Act. Description of materials is as follows:

**FOUNDATIONS**

Portland Cement concrete. Concrete overlay 3 inches thick under Housage, 3 inches thick optional. Agricultural tile drains round external walls.

**FRAME**

Standard construction with B.C. Fir of sizes shown. External walls shiplap, tar paper covered with Cedar siding or cement stucco on wood lath (optional).

**MILLWORK**

B.C. Fir Kiln Dried to standard practise.

**FLOORS**

Living Room, Oak Veneered floor; Bedrooms, B.C. E.G. Fir T. and G.; Kitchen and Bathroom, B.C. F.G. Fir T. and G. with Linoleum. Kitchen Cabinets Fir Bench tops covered with Linoleum.

**FIREPLACE and CHIMNEY**

Brick in Cement mortar. Vaglio or other approved Heatilator. Tile hearth.

**ROOF**

Close boarded with Asphalt shingles of varying shades.

**PLASTERING**

Wood lath two coat work, finished with putty or sand finish coat. Externally with Cement stucco (optional or Cedar Siding).

**PLUMBING**

Standard with recessed bath, laundry tub. Toilet wash basin and domestic hot water range boiler.

**ELECTRIC**

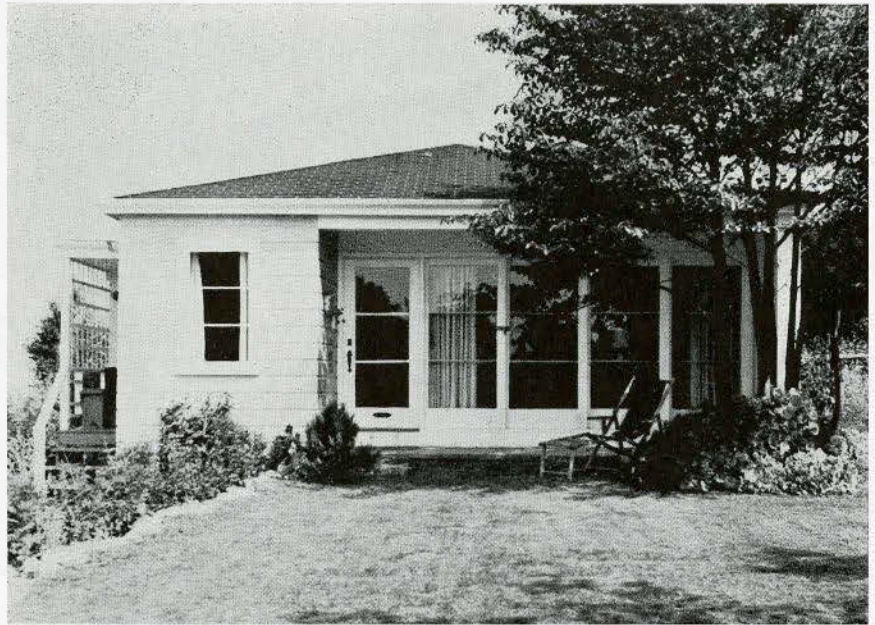
Standard knob and tube with simple fixtures.

**HARDWARE**

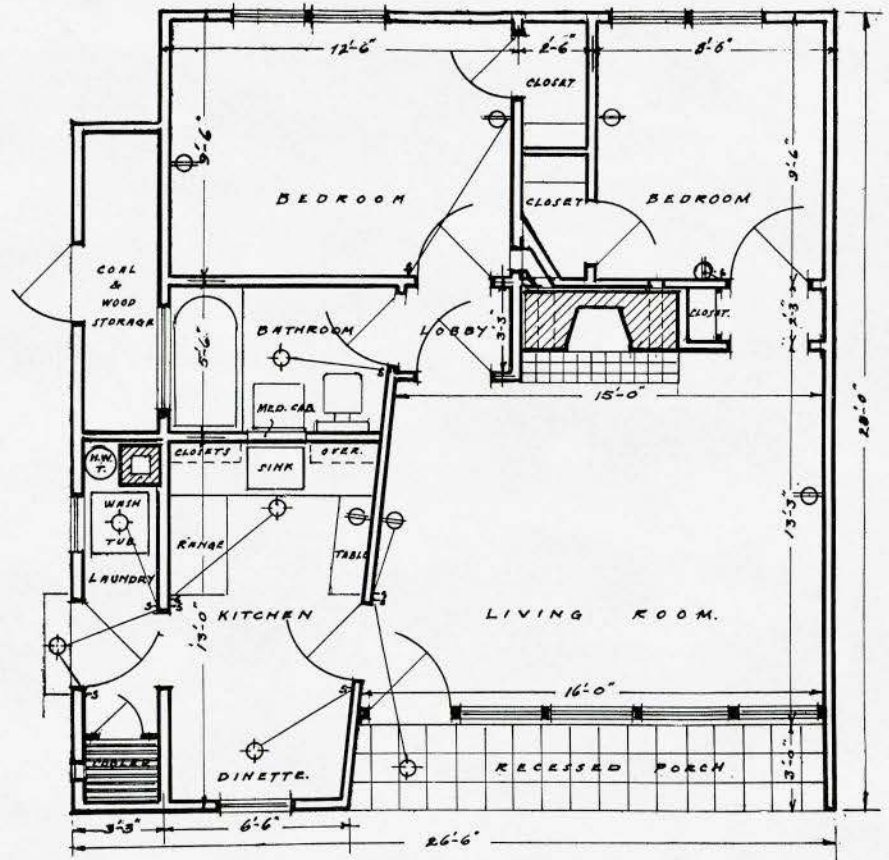
Pressed steel inside. Externally of cast metal as procurable.

**PAINTING**

Externally two coats, internally two coats and one enamel in Kitchen and Bathroom. Plaster in other rooms one coat Monoseal or equal.



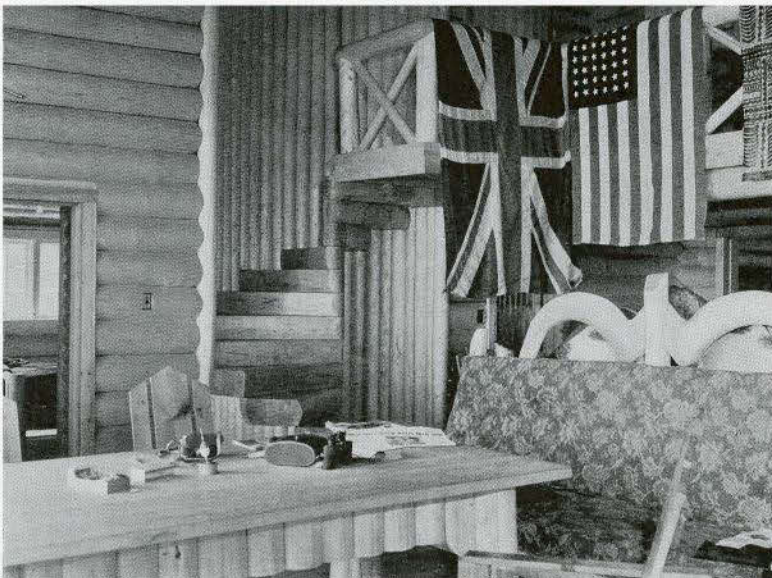
THOMPSON, BERWICK AND PRATT, ARCHITECTS





LODGE FOR THE GREAT LAKES PAPER COMPANY, BLACK STURGEON LAKE, ONTARIO

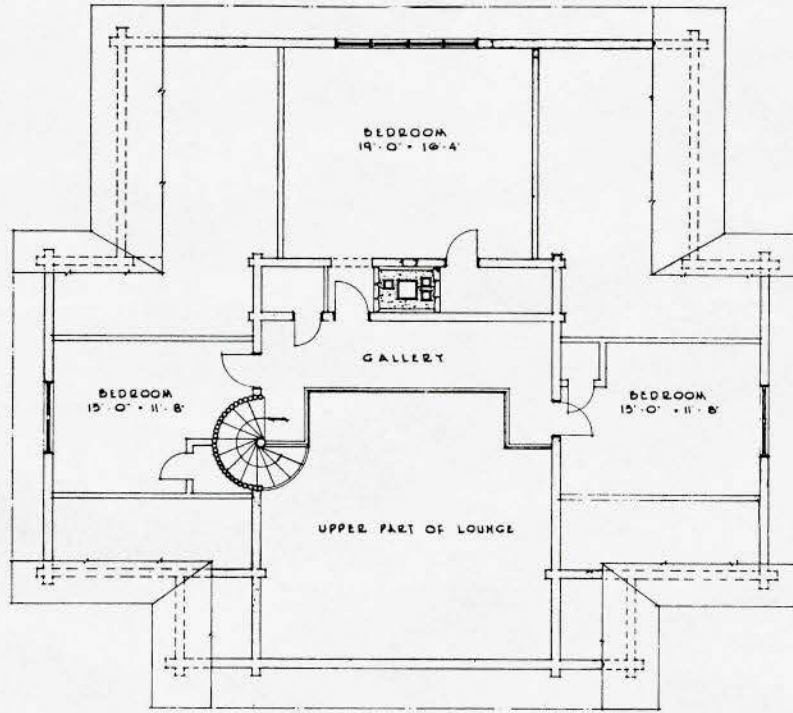
LYNDEN Y. McINTOSH, ARCHITECT



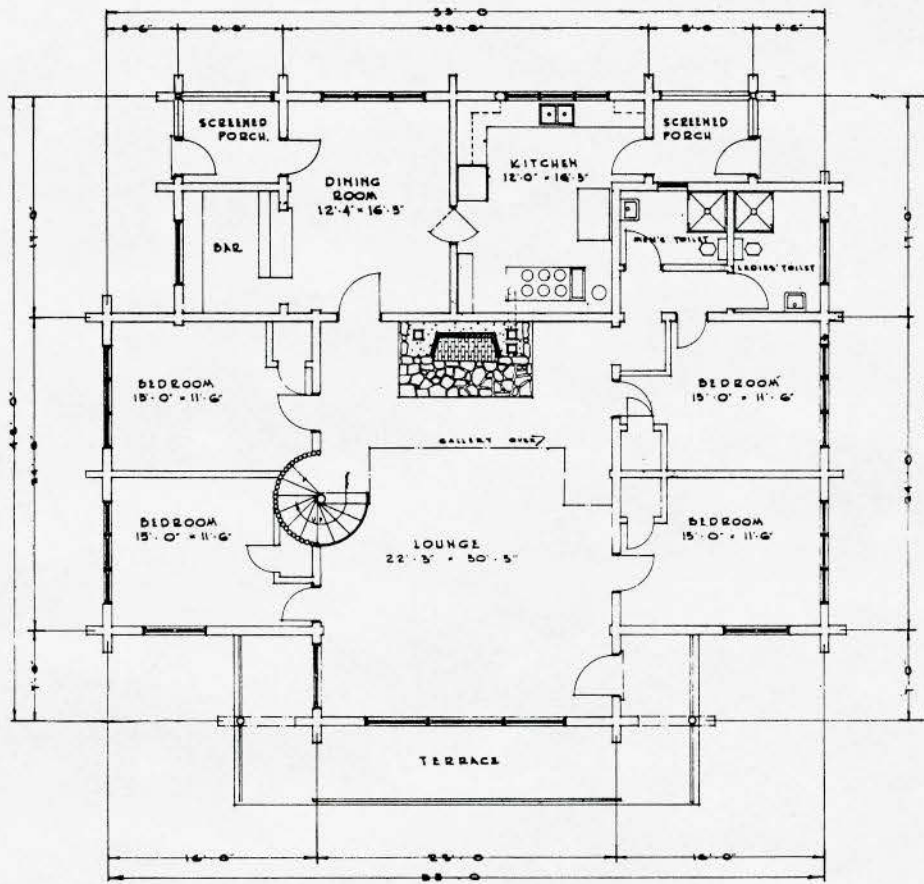
LOUNGE ROOM



CAMP DOCK



SECOND FLOOR PLAN



FIRST FLOOR PLAN

LODGE FOR THE GREAT LAKES PAPER COMPANY, BLACK STURGEON LAKE, ONTARIO

# COPYRIGHT

It has always been difficult for Architects to be sure that they will receive credit for material supplied by them to the newspapers.

Sometimes perspectives of future work leave their hands and are obtained from others for publication. In this case the appearance of his drawings in the newspaper — almost always without credit — is the first knowledge the Architect has of the matter.

While the Architect normally retains copyright, if he should wish to enforce his rights, he would have to sue for damages. He may, for a small fee, however, register his copyright, having done so, unauthorized publication becomes a breach of the Copyright Act, and the Architect, therefore, is protected and may insist on receiving the credit to which he is entitled.

On a recent occasion, when a page of perspectives appeared in a Toronto newspaper without the knowledge of the Architects concerned, and without their names being mentioned, the matter was referred to the Institute Solicitor for his opinion. He reports as follows:

Dear Sir:—

We understand that Mr. Page, the President of the Royal Architectural Institute of Canada, has requested you to obtain from us some general directions which might be followed by Architects in registering perspective drawings, plans, elevations and specifications.

We find that it is not necessary to actually file copies of any of the documents in order to obtain registration. The author or authors of the work which it is desired to protect are simply required to fill out an application in the form enclosed herewith and to forward the same with a marked cheque or money order for \$3.00 payable at par in Ottawa to the order of the Commissioner of Patents and he in turn will send a certificate to the applicant covering the registration.

When the writer was in Ottawa recently he interviewed the Chief Officer of the Copyright Office and discussed the practice in such matters in that office, so that we might pass on to you any special information we could obtain that would facilitate registration.

We found that it is the practice of the office to regard plans and elevations all as "literary" works, first because they are in the nature of directions for the builder, and second because they come under the definition of "literary work" as defined in the Copyright Act. Specifications would, of course, be in the same classification.

On the other hand, perspective drawings or pictures of a finished building are treated as "artistic" works and should be so described in the application.

There are three other points which should be regarded if an Architect is to protect himself as thoroughly as possible. The plans, perspective drawings, elevations and specifications should be signed by the author or authors of them.

After the certificate of registration has been received the words "Copyright Registered" should also be placed on the documents, although there is no specific provision of the Copyright Act requiring that this be done. The effect of adding these words, however, is to give clear notice that the copyright is protected by registration.

It is also very important that the Architect should protect himself when accepting his retainer by making it perfectly clear to his client, preferably in writing, that the copyright in the plans, specifications, perspective drawings and elevations is to remain in the Architect.

You will observe that the enclosed form states that the work "has not been published". The word "publication" is given a special meaning in the Copyright Act, namely, the issue of copies of the work to the public and does not include the exhibition in public of an Architect's work. It would only be in a very rare case that an Architect would have issued copies of any of his works to the general public before he made application for registration of his copyright. In such a case the following words should be inserted in the application in place of the words "has not been published"—"was first published by the issue of copies thereof to the public on the        day of        19        in (city, town) of (province)."

Yours truly,  
Fleming, Smoke & Mulholland.

## *Application for Registration of Copyright*

I, (here insert the name of the Architect or Architects) of the (city, town, etc.) of (Province of) hereby declare that I am the owner of the Copyright in the (literary or artistic, as the case may be) work entitled (for example, the Marani Mansions, being the plan of the ground floor of an apartment building) by (here insert the name and address of the author), and that the said work has not been published; and I hereby request you to register the Copyright of the said work in my name in accordance with the provisions of the Copyright Act, Revised Statutes of Canada 1927, Chapter 32.

I hereby forward the fee of \$2.00 for registration of the said Copyright, and the further fee of \$1.00 for certificate of such registration.

DATED at                    the        day of                    19        .

(Signature)

To The Commissioner of Patents,  
Copyright Office, Ottawa.

N.B.—The Application must be legibly and neatly written, printed or typewritten on foolscap paper and shall be signed by the applicant or by an agent duly authorized. A person may sign for a firm. A Director or Secretary or other principal officer or a Company may sign for the Company.

# HOUSING

*From the Monthly Letter, Royal Bank of Canada*

It is a matter for regret that in the long march of civilization no satisfactory solution of the problem of providing suitable shelter for families has been reached. Housing has the most widespread effects on society, reaching through the whole economic and social life of every community. Upon it depends in large measure the health and happiness of the population, and the economic welfare of the nation, but difficulties pile themselves up into a load that invites inertia. Persons charged with responsibility for the nation's housing find themselves faced with questions of land values, building regulations, tax rates, material supply, labour codes, legal custom, financing, site planning, management, and, greatest of all, the idiosyncracies of the people who are to inhabit the houses. There is no simple formula, and panaceas, whether drawn from hats magically or worked out painstakingly by reformers, often raise false hopes which hinder permanent solution.

Canada has too few houses, while many existing houses are unsatisfactory in hygiene and public health standards. Every class is steadily expanding its ambitions, every generation appreciates more than its predecessor the advantages and comforts of a better dwelling, and new public welfare ideals have given rise to demands for a certain minimum of good shelter for all Canadians.

Overcrowding is the greatest of housing evils, measured not by the number of persons to the acre but by the number of persons to rooms. Congestion of buildings along transportation routes in cities is inevitable, but it may be quite consistent with satisfactory housing. Privacy and comfort are the criteria. There must be separation of the sexes, and living space which relieves the pressures unavoidable in the close association of a growing family.

Though standards of housing cannot be calculated with great precision, the census indicates one room per person as a reasonable dividing line for requirements of health, privacy and convenience. Canada was suffering some overcrowding even in 1941. Crowded households comprised 7 to 28 per cent. of all households in 27 cities of over 30,000 population. The total was about 150,000 households, including a million people, representing 18 per cent. of households and 29 per cent. of population in these cities. Overcrowding is not confined to slum districts, but it definitely tends to drag even decent living places into the category of slums. Figures collected in the census indicate that adequacy of living accommodation is closely related to income. From 4 to 60 per cent. of crowded households in these 27 cities, more than 29,000 in all, paid less than \$15 a month rent, and the average earnings of wage-earner heads of crowded families were lower than the general average by as much as \$600 per year in some cities. Records for the four largest cities (Montreal, Toronto, Winnipeg and Vancouver) indicate that less than one room per person was available for about 61 per cent. of persons at the \$100 to \$199 per year earnings level; 13 per cent. at the \$400 to \$499 level, and 3 per cent. at the more than \$800 level. At more than \$1,000 a year the average in 27 cities is 2.1 rooms per person.

The more closely together people live, the more surely does disease which is acquired by contact infection spread. This applies to common colds, influenza, diphtheria, scarlet fever, measles, infantile paralysis, pneumonia, tuberculosis, and many others. Infant mortality is higher in crowded areas. In Toronto as a whole the rate in 1933 was 63.4 deaths per 1,000 live births; in its seven areas of bad housing the rate

was 72.6 and for the four areas of good housing only 58.3. In one section the rate was 121.2, almost double the rate for all Toronto. In Glasgow, formerly one of Britain's worst-housed cities, infant deaths in the city as a whole averaged 102.3 per thousand; but in a new housing scheme at Knightswood the rate was only 49.4. Other factors enter in, of course. Full credit cannot be given to housing, but it is significant, in view of what the United Kingdom has done in the building of better homes, that 83 per cent. of the first group of men called for military service in 1939 ranked in first-class health, whereas in 1917-18 the corresponding percentage was 36. Sweden, too, has a fine record. Between 1916 and 1936 tuberculosis fell about 40 per cent., and Sweden's example in planning and equipment of dwellings sets an example hard to beat.

The social function of housing is important. Proper building and siting of homes should promote neighbourliness, civic sense, architectural pleasantness and a feeling of stability. They would advance industrial efficiency, better citizenship, higher standards of family life, comfort, and contentment. They would help to eliminate class hatred, social unrest, and revolutionary propaganda, which are the accompaniments of crowded housing. They would help reduce juvenile delinquency, which, while not always attributable to poor housing, is its universal attachment. According to figures given by the Canadian Association of Social Workers, Montreal Branch, in one year the delinquency rates per 10,000 population in Montreal were 15.5 for the bad housing wards compared with 1.17 in Westmount, 1.7 in Notre Dame de Grace and .84 for Mount Royal. In Toronto that same year 43 per cent. of the city's juvenile court cases came from three poor housing districts.

All political parties are agreed on the need for housing as a major activity in the programme of reconstruction. The Deputy Minister of Finance, Dr. W. C. Clark, estimated in 1936 that Canada required 50,000 houses a year to maintain shelter for its people.

It is no solution, said the Montreal report of 1935, to put forward schemes for slum clearance with replacement of dwellings which rent at \$5 a room per month, because these houses will only cause slums to arise elsewhere to shelter people who cannot afford to pay more than \$2.50 a room. There seems to be agreement that the average family, particularly at the lower levels of income, should not devote more than a fifth of its income to rent, which means that the lower third of tenant families could afford to pay only \$11.72 a month. The actual rents paid by this group in 1941 averaged \$19 a month, half as much again as they could properly afford for rent. The Advisory Committee on Reconstruction dealing with Housing reached the conclusion that between three-quarters and four-fifths of the lower third of tenant families must depend upon publicly-financed low-rental housing if they are to get proper accommodation, and that this housing must rent for \$12.50 a month or less. The 1941 housing census revealed that 92 per cent. of Montreal's low income families, and 93 per cent. of Toronto's pay more than 20 per cent. of their total family income for shelter.

People talk a great deal about possibilities for saving in the construction of housing, but it has been estimated that a saving of 25 per cent. in the erection of a dwelling will result in less than 10 per cent. reduction in rent. This is a useful saving, but it is not sufficient to solve the housing problem. While hourly rates for skilled construction workers seem high

when contrasted with the rates of pay for semi-skilled and unskilled labour in manufacturing, they are not out of line with the wages paid other highly skilled workers, and it must be remembered that the annual earnings of construction workers are adversely affected by the seasonal nature of their employment. Some people blame the cost of financing for the dearth of new houses, but the Deputy Minister of Finance considers this a mistaken view: "There is far more room for legitimate saving in the modernization of construction methods, the improvement of public attitudes and regulations, and the correction of wasteful methods of land utilization than there is in the cost of financing. Moreover, much of the alleged excessive cost of financing is merely the natural and inevitable result of unsound and wasteful procedures."

The house construction industry needs some internal adjustment. The Minister of Finance told Parliament this year: "One of the great weaknesses in the house-building industry in Canada is the absence of a substantial number of companies with competent management and with sufficiently large resources to acquire large blocks of land, and to develop such areas in a comprehensive way providing all necessary community and incidental services." The provision of dwellings is just now evolving from the artisan stage to machine age practices. The welfare of the construction industry throughout this transition is important not only to those engaged in the industry itself, but to the whole national economy. House builders are not, as some demagogues would have the people believe, innately malicious, imposing high prices to keep people from building houses except at great expense and with great profit to the industry. The building contractor does not like, any better than another business man, to lay off his workers in winter or in slack periods. But individual builders are caught in a web of complex relationships with manufacturers, dealers, labourers and buyers. Instead of the integration which would make for cheaper houses and more steady employment, there is lack of standardization, with attendant localization of operations, and backwardness in technology. Dr. Clark remarked that the building industry is relatively unchanged in form of organization and in technical processes from that which catered to our forefathers prior to the Industrial Revolution. "During a period," he said, "when machine production, standardization, and technological advance have been revolutionizing every other important manufacturing process, the building of houses has remained a localized, handicraft process."

In the immediate post-war period this industry will be called upon to carry responsibility for large-scale immediate employment. The building of houses does not mean work merely for carpenters, brick-layers, plumbers and other construction artisans. An estimate has been made that the labour value of a building dollar is about 75 cents when the off-site employment is considered. A study made for the Department of Finance revealed that 1.3 man hours of work had been provided in auxiliary industries for every man hour worked on the sites of 25,000 housing units.

It has been estimated that Canada's minimum housing need after the war will call for the erection of 50,000 to 100,000 units in the first post-war year, and of 700,000 in the first ten years. If the first post-war year should be 1946, the actual accumulated need for new urban housing units would be 500,000, according to the Committee on Housing and Community Planning. A twenty-year programme is advocated, to provide about two-thirds of the actual needs.

Rural housing is a problem all by itself, and deserves separate treatment. The situation is less serious than in urban centres so far as quantity is concerned, but poor farm housing can have an important adverse effect upon the economy of Canada. It was pointed out in a recent National Farm Radio

Forum that young people cannot be expected to make their homes on the farm unless those homes are provided with the conveniences now found in even the most modest town and city dwelling. "Boys are leaving the farm because they will not bring their brides into the homes, and daughters have the same problem," one of the speakers said. "More than that, if we ever hope to solve the farm labour problem we have got to provide living conditions so the young farm helper can marry and raise a family under his own roof." This would call for the erection on every farm of an extra cottage for the hired man or married son.

All the predisposing causes of inadequate housing became focused in the first years of war, and the resulting crisis threw the Dominion Government into a position of leadership in provision of low-rent houses for war workers. Wartime Housing Ltd. is the Government's authority for this work. It has built two types of houses, hostels, staff houses, dining halls, schools, and special buildings. It is proposed to take down and sell these buildings after the war, but there will be a problem in the absorption elsewhere of some 70,000 persons who now inhabit them. Many of the industries, to serve which the houses were built, will be turned to peacetime production, and there will be a tendency for the houses to remain in use. Once dwellings are erected and occupied they become part of the community, and they will probably be used as long as they are better than the worst.

One great difficulty crops up to plague administrators in cities where low-cost housing is provided with the aid of subsidies. Since the poorest houses provided by the administrators will contain bathrooms, hot and cold water, and weather resisting qualities, it is apparent that people moving into these houses will automatically obtain better accommodation than a big proportion of the rest of the population. In the nature of things, the better-class workman would not be among those to occupy the first houses, and would find himself in poorer accommodation than his less competent neighbour, while, at the same time, he would be contributing through taxation to the establishment of conditions for others which he could not obtain for himself.

The Dominion Government does not accept the views of those who believe that municipalities should engage in a vast programme of state housing financed largely by Dominion Government funds. Housing is placed by the British North America Act under provincial jurisdiction, but the Federal Government has been making financial provision to encourage building and renovation of houses over a period of many years. In fact, in 1919 and in 1938 legislative provision for help to housing seems to have been ahead of public opinion and of technical preparation. Between 1930 and 1937, under a policy of encouraging money-lending for housing, only 2.8 houses per 100 families were erected, whereas in England and Sweden in the same period the number of houses built by unassisted private enterprise alone was 16.5 and 26.3 per hundred families respectively. Up to July this year the government had made 21,839 loans amounting to more than \$87 million and providing accommodation for 26,443 families, with a net loss to the government under both the Dominion and National Housing Acts of only \$970. Under the Home Improvement Loans Guarantee Act of 1937 there were 125,720 loans for modernization of existing homes, totalling nearly \$50 million, on which the net loss represents a percentage of .806. The 1944 National Housing Act provides for the construction of houses by home owners, construction for rental purposes and slum clearance, rural housing, loans for modernization, housing research, and other matters pertaining to rehousing.

Prefabrication has been much talked of, but the movement is still in its infancy. Prefabrication simply means that all pos-

sible parts are made in a factory in comparatively large units as nearly as possible in their finished form. These may be rapidly assembled on the site without cutting and fitting. Students of the subject are convinced that no greater saving than 15 per cent. can be anticipated, and this has been confirmed by actual American experience. The future of this kind of house seems to lie in the \$2,000 to \$3,500 price range, although there is no reason why prefabrication should not be applied to the interior fittings of many more expensive buildings.

People do not want radical ideas in housing. They have no desire for sliding walls and rooms which can be extended by the mere pulling of a zipper. What is wanted first of all is a house in which each family can live. People who have been in rooming houses and wartime barracks are not going to wait for glamorous plastic interiors at low cost. All they want are the simple luxuries of space and privacy. A study in the United States reported that there should be sufficient space and number of rooms according to size, age and sex of the family to meet their needs for being together and for being alone, safe play space for children indoors and out, and a socially wholesome neighbourhood. The present minimum for a living room in Britain is 180 square feet, and the Royal College of Physicians has recommended that this be raised to 200 to 250 square feet.

Some very interesting housing projects have been carried out in Europe. Splendid value is provided by British agencies, for the most part on a strictly business basis. This is achieved by corporate ownership and collective management, with large-scale operations. Britain's experiments with "garden cities" have been of interest to all the world. As early as the beginning of the 19th century Robert Owen was running a successful cotton mill in Scotland, giving his workers shorter hours, higher wages, education, good working conditions and a well planned village. Port Sunlight, the Lever Bros. project, was started in 1887, and Bourneville, the Cadbury garden village, arose in the 1890's. One of the striking modern developments is at Letchworth, England. This is not only a well laid out garden city, but a paying concern, organized as a Joint Stock Company in 1903. After 35 years in existence a survey showed that the industrial workers at Letchworth lost only half as many days through sickness as did workers in other English industrial towns. The death rate for all England was 50 per cent. higher, the infant mortality rate 84 per cent. higher and the tuberculosis rate 100 per cent. higher than at Letchworth.

In whatever scheme may be devised for providing housing the tenants have a responsibility as well as the builders or landlords. A tenant who is careless penalizes himself because the landlord is compelled to establish rents which will meet excess costs of maintaining property. If he cannot get the rent required to cover the expense then the result is that he refuses to make repairs or he rejects as tenants people he considers undesirable. Greater stability in occupancy, more careful treatment of property, and regularity of rent payments would enable landlords to reduce rent charges to some extent. It is well known that some families would make slums out of good houses because of a destructive tendency arising out of ignorance or carelessness. It is only one of the problems of rehousing to educate such people so that they may rise to the level of improved environment. A partial solution has been found in Holland, where a society of tenants obtains a certificate from the government, draws up plans for a housing project and obtains a loan from the town. The society is allowed 50 years to repay the amount advanced for building, and 75 years for the amount expended on land. These tenant societies have been very successful, managing their properties efficiently and democratically. They have paid their way without any government subsidy, and they do not even ask for tax exemption.

There is a great handicap placed upon construction in Canada by reason of the taxation system which levies rates on houses according to their assessed value. As a result a considerable part of the rent of working-class families goes, not toward paying for their dwellings, but toward meeting the general expenses of the local government. It must be admitted that real estate taxation operates as a regressive tax, so that the lower the income the higher the proportion that goes in municipal taxation. It almost seems as if an exhaustive study and revamping of the tax system in its relation to home ownership would be a first requirement of any constructive rehousing programme. Some cities, dependent for their revenues mainly on the real estate tax, have raised assessments and rates until they have become so high that new construction has been discouraged, and in many places stopped altogether.

Any rehousing project must face the problem of local building codes. If up-to-date structural methods and modern materials could be used freely there might be considerable economy in construction. The Montreal Board of Trade report commented that the building by-laws of Montreal leave little room for ingenuity in design or the application of modern methods. It is frequently argued that the multiplicity of building regulations provides a major cause of excessive cost. Dr. Clark has expressed the hope that "with the co-operation of the National Research Council we may be able to devise a model building code which will prove at least a guide to municipal governments." Some authorities have estimated that the differences in local building codes create a variance of as much as \$350 in the cost of the average house.

In all the building that will have to be done to meet immediate needs and keep up the supply of houses, private enterprise must be encouraged to take the largest possible share of responsibility, while governments of all levels play their parts in a housing programme particularly designed to meet the needs of the lower income classes. There is ample room for both. Private enterprise will probably find its greatest opportunity in large-scale projects which give scope for economical construction and maintenance. It should be possible, with these economies and through improved construction methods, to extend the housing provided by private enterprise downward to take in many groups for whom it is not feasible to provide by present methods, though there will always be some in the community unable by any means to provide for their own housing needs.

Housing is more than a local problem, although of course it affects the community most closely. Because of its health and employment features it impinges upon the whole life of the nation. It is part of Democracy, which implies a continuing effort toward the goal of equal opportunity for health, decency, and normal family life. In these days, much more is comprehended than just shelter; a certain standard is being accepted as minimum. To achieve it will require not only the efforts of architects, financiers, builders and the several governments, but education of the public. Citizens' committees could be established now to formulate plans for communities, survey the needs, and start informing the public. In the long run, education, good management, and popular representation in community affairs will be the most lasting means of improvement, the surest safeguards against blight that threatens whole neighbourhoods, and against the recurrence of housing conditions which are universally regarded as inadequate if not actually dangerous to the health, morale and general well-being of the people of Canada.

# THE PROVINCIAL PAGE

## A E D I F I C A V I T



LESLIE RAYMOND FAIRN (F)

One of the valuable things obtained from an annual meeting of the Royal Architectural Institute of Canada is that new friendships are made, new views are expounded and old ties are cemented. On the whole, we are a group of busy architects from cities and towns who are unable, completely, to shed, even for a day, the worries of the modern professional man. With one exception—Leslie Fairn. His very appearance, his tweed suit and unruly hair, suggest the calm of the country, and the tang of salt sea air. One would not need Highland sight to know that this man came from Nova Scotia. If one had any doubts, they would be dispelled when he showed you photographs of his sheep, and of his house, and the road that leads to the cove where the lobster boats come in. No meeting would be complete without him, and no man in the profession is more greatly loved by his fellow architects. It comes as a surprise to know in "Who's Who" that this modest man has been responsible for the design of Acadia University, Amherst P.O., the Nova Scotia Infirmary for Tuberculosis; the Court Houses at Newcastle, Yarmouth, Digby and Annapolis, as well as hospitals, churches, houses, industrial plants and theatres. We learn that his home is in Wolfville, and that his recreations are fishing and hunting. To those, we would add to the official record, farming and making friends, but perhaps both of those are more than recreations. One at least he practises whenever he is with his fellow men.

## ALBERTA

The recent visit of Miss Jaqueline Tyrwhitt of London, England, to various cities of Canada, spreading the gospel of town planning, suggests how much more benefit could be derived from exchanges of experience between city and city and country and country. The touring lecturer, of whom there are many, travels from city to city over our wide Dominion at such speed that, as one of them expressed himself, he has to be careful to keep reminding himself that the place where he is now speaking is called, say, Saskatoon or some such name and not Regina, or wherever his last pause may have been. These lecturers are generally, as was Miss Tyrwhitt, very well informed and a longer stay in each place would be well worth while to visitor and visited alike.

Amongst other visitors, we have had a whole conference of them in Edmonton on the subject of aviation. An important matter that entered into the discussions on aviation is that of the tourist industry. If this is the reverse of an industry on the part of the tourist it becomes a very important and remunerative one on the part of the entertainer and one that now claims to take second place only to agriculture in its financial importance to the country. Of all people, the agriculturist is the most certain to benefit from the tourists. For whatever else these may do they must eat. The tourist business is also of importance in

building and in architecture. The tourist must not only be housed in hotels, camps, lodgings, etc. He will also look for entertainment. It might at first be supposed that his entertainment will be of the out-of-door sort. That, of course, is his chief hope. But in Canada it sometimes rains. Even sunny Alberta is not entirely exempt from that. Rainy days are apt to be the tourists' great bug-bear. He will incline to favour such places as afford good indoor entertainment. If the towns that he visits have good buildings in fine environments his pleasure will be the greater. This is where it will profit Canadian towns and cities to see to it that they are themselves worth coming to see and to live in.

The special importance of this to Alberta is that this province contains national parks incomparable for extent and for scenic splendour as well as for many more natural interests. In these parks there has not, so far, been preparation for such an influx of visitors as is now likely to descend upon them. The relative scarcity of visitors in the past has largely been due to their inaccessibility except for those with considerable time and money to spare. With the rapid improvement in comfort and cheapness of air travel the situation is totally changed. These places are now within twenty-four hours' flying time of many great centres as far off as New York. The Federal Government and the National Parks Bureau are taking note of this and making preparations accordingly. Landing fields are being located in the neighbourhood of Banff and Jasper, the most important townsites situated within the national parks. For entertainment of tourists in many ways including cabin camps throughout the Rocky Mountains there is a considerable field for private enterprise. The government is disposed to offer all reasonable facilities for this sort of enterprise.

This part of the Dominion is practically a new field for the tourist. It is by no means new for aviation. For not only has Alberta been the great training ground for aviators, it has produced the boldest and most resourceful explorers and supplied many men for the air forces. Edmonton has long been the greatest airport on the continent and has a still greater future in that line. The reason for this is that there lies a whole, almost unexplored empire to the north which can be opened up only by the air. This has long been a dream; it is steadily coming nearer to realization. Not only will the Rocky Mountains attract visitors. There is scope for good hunting in the great Alaska highway area and there are openings for great enterprise in the mighty basin of the Mackenzie River.

Cecil S. Burgess

## ONTARIO

Our victory over the enemy makes all other news seem commonplace.

In the new biography of the well known Canadian artist, G. A. Reid, by Muriel Miller, there is a reproduction of his painting, "The Foreclosure of the Mortgage". This picture, full of human interest, shows the hard-hearted mortgagee reading the terms of the mortgage while the dying breadwinner gazes heartbrokenly at the soon-to-be-bereaved-and-evicted mother and babe. In the shadows, two female dependents and a brace of children supply a background of infinite pathos. I am amazed to find that there are still people so uninformed that they believe the old laws which called for immediate forfeiture of property in event of non-payment of the principal at an appointed hour, are still in effect. With admirable self-restraint, I omit a "plug" for the N.H.A. at this point.

Toronto has prepared its third Town Planning Report, and is working on its fourth. The main point at issue is whether the old



city should be rebuilt and citizens provided with new housing within the city limits, or whether the new residential areas should be in the outer ring with a subway built to bring people downtown. A third alternative is to have the business and shopping area in the heart of the city, the factory district in the outer ring, and the housing in between. No matter which is chosen, it is to be hoped that the appalling land-butcherings which are going on in the area that was to be the Green Belt, will be brought under control before it is too late. Farm after farm is being sold, cut-up, and labelled "subdivision", until there is already enough land sub-divided in the suburbs to house 100,000 people. The cost of providing adequate services for such extended areas would be fantastic; and as most of these houses have to rely on septic tanks for sewage disposal, the local authorities have a real responsibility in the matter and should set a minimum lot size for all houses dependent upon individual septic tanks. The quality of leadership given local planning now, will be the chief factor in establishing success for post-war housing.

I note in an English weekly that Sir Giles Scott, speaking on "The Cathedral", said: The modern style was the product of revolution, not evolution. But if they gave it another fifty or hundred years, it would develop a quality which it had not yet achieved. At present, it was negative, and was not fit for use for a permanent building like a cathedral. It was useful for factories, breweries and power stations, however.

The high cost of present day building is still a difficulty with its obvious variation between lending value and actual cost, which means a larger down payment by the borrower. The easiest way to understand why this has to be, is to place yourself in the position of the lender.

The revised N.H.A. specification book has just been issued (N.H. 22), and is a valuable document for all engaged in building a small home.

In a recent press release from the Soviet Embassy in Ottawa, it is pointed out that "increasing attention is being paid by people prominent in Soviet science and art, to problems of restoration of famous buildings destroyed or damaged by German bandits." One always has more respect for a nation that is proud of its past. It shows a balanced outlook.

R. W. G. Card

## HOUSING AND COMMUNITY PLANNING

Reviewed by Kent Barker

Probably the average Canadian is more conscious of planning today than ever before in our history. At any moment now we may expect to find the war news crowded off the front pages by the urgent problems of peacetime reconstruction. At which time our planning, or lack of it, will cease to be a subject for academic discussion and will be put to the test in terms of hard reality. Public concern over post-war uncertainties, as well as the revival of professional activity in civic design, is no doubt responsible for the volume of books, pamphlets, and reports on planning which are now being produced.

Architects and planners in this country have long been dependent upon British and American sources, and will welcome this latest addition to the meagre Canadian literature on the subject.

The book consists of a series of eighteen lectures which were delivered at McGill during the 1943-44 session. Although not by any means a complete presentation of the whole field of physical planning, it covers a wide range and includes much useful data. The list of contributors includes such familiar names as those of Professor John Bland, O. J. Firestone, Aime Cousineau, Benjamin Higgins, Dr. Cyril James, and others recognized as specialists in some particular sphere. In many ways it is a close parallel to the lecture series arranged by the University

of Toronto last year, which were later issued in mimeographed form. The two together constitute an excellent introduction to Canada's own post-war planning opportunities.

The lectures are easy reading and are arranged for as much continuity as is practicable in a work of this kind. Beginning with discussions of a general nature, recognition is given to the primary importance of the economic forces to which our long-term planning must conform, if we are to achieve any measure of success in stabilizing our standard of living at a satisfactory level. Succeeding chapters cover most of the familiar aspects of the general picture—housing, traffic, public utilities, health and recreation. There is some good practical information on planning law and procedure, including such mundane considerations as public debt and municipal finance. The rôle of Government planning in Canada, so vitally important in our present stage of development, is summed up by Dr. Leonard Marsh.

As might be expected there are several chapters devoted wholly to problems peculiar to the Province of Quebec, and the City of Montreal. Professor Everett Hughes of the University of Chicago has contributed a refreshing discussion of the complications introduced by the existence of strongly divergent ethnic groups within the planning region.

Conspicuously lacking is an adequate statement of the principles underlying the contemporary theory of neighbourhood units, and the need for community centres is given only a passing glance. The Canadian public—certainly the people of Ontario, at least—are showing some degree of genuine interest in the possibilities of developing community centres for recreational and educational purposes, and are probably more disposed to take action along this line than in any other phase of planning. For this reason the omission greatly reduces the value of the book for public consumption.

One wishes that the series might have been rounded off by a final chapter to co-ordinate the preceding bits and pieces, and to give some inkling of the actual physical pattern of a city planned for the complex requirements of urban life. A sort of "superlecture" with diagrammatic plan attached, would have added immensely to the overall effectiveness of the whole.

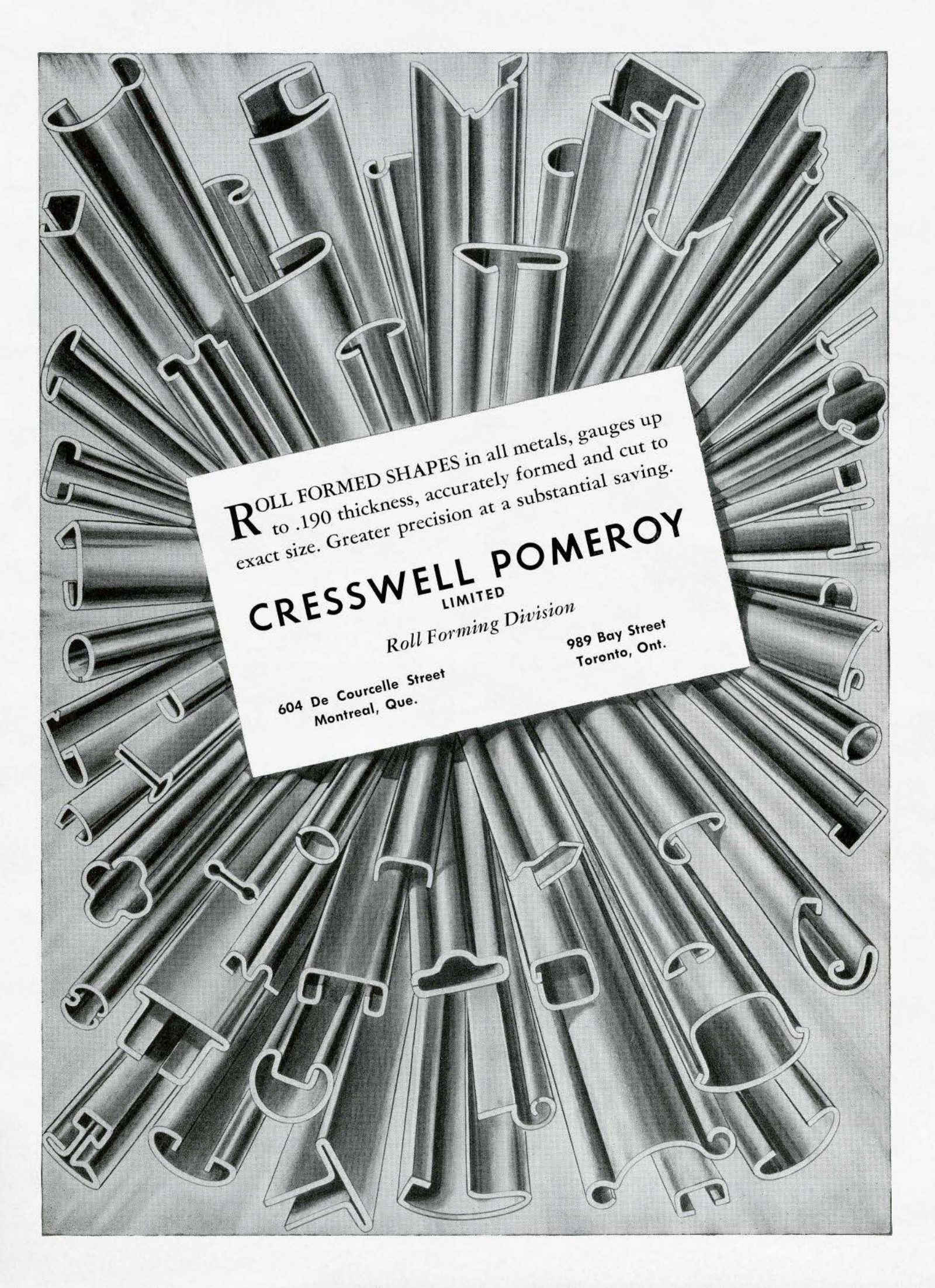
## THE FUTURE OF ARCHITECT-ENGINEER RELATIONS

(Continued from page 116)

not members of a profession merely to make money, nor primarily to satisfy our creative instincts. I do not think it is too idealistic or foolish to suggest that we are in our professions because we feel that in this way we can contribute our little bit towards the well-being of our community, thus taking our part in the task of striving for a better life for our fellow citizens and for ourselves. I would ask, in all respect, if there is anyone here who thinks that we are serving our community well by wasting time arguing, or taking legal suit against members of a sister profession? I, for one, refuse to believe it and I know that in this I am not alone.

Although there are, and probably always will be, individual cases which violate all the rules which should govern the relations of the two professions, if we forget the individual case and keep our eyes on the future rather than on the details of the immediate present, then there is no reason in the world why the two professions should not co-operate most harmoniously in Ontario, and throughout Canada. I am convinced that, even today, the co-operation we do have between architects and engineers in Canada, and especially in Ontario, is far ahead of that in most other parts of the English speaking world. We should keep that lead and demonstrate more and more to the people of Ontario, of Canada, even of the world that here, at least, the two professions do know what they are doing, that they do have a common goal in view, that they can co-operate for the good of the commonweal.

Thank you, very much.



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